THE *WELLBEING*
of ARCHITECTS
culture, identity
+ practice.

The Wellbeing of Architects 2021 Practitioner Survey, Primary Report

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1 Introduction and executive summary

Introduction

This report presents the findings of a major survey of work-related wellbeing in the Australian architecture profession, undertaken in 2021. The survey was part of a larger research project – *Architectural Work Cultures: professional identity, education and wellbeing,* funded by the Australian Research Council between 2020 and 2023.

The research project investigates the widely held perception that there are problems with work-related wellbeing amongst students and practitioners of architecture in Australia. This perception has been prominent for some years, evidenced in professional media commentary, discussion at industry events, and anecdotal accounts (Bisset 2018, Raisbeck 2016, Kaji-O'Grady 2016, Kinnaird 2016). In 2016 the NSW Architects Registration Board commissioned a comprehensive literature review, which described a culture in which a high-pressure work environment has become normalised and identified a pressing need for further research into perceived systematic problems (Karklins & Mendoza 2016, Horton 2016).

There has been much concern about work-related wellbeing in architecture, but a lack of large-scale, rigorous primary research looking to examine whether such concerns have substance; if so, what might be contributing to them; and therefore, what might be done to engage with or improve the situation.

The survey represents one step towards addressing this gap in knowledge. It is significant for a number of reasons: because of the nature and gravity of the question it investigates; because it comes at a moment of great disruption in the construction sector and architecture profession; because it records the effects of significant global upheaval caused by the COVID-19 pandemic; because of its nationwide scale and significant number of respondents; and because of its employment of both qualitative and quantitative interdisciplinary methods. In particular, the use of validated multi-item measures enables direct comparison between architecture and other professions and populations – an approach that has rarely been used in research in the architecture profession, and which is particularly significant when investigating subjective wellbeing.

The survey is also important because of its findings. It reveals that people working in architecture have a strong sense of career agency, feel that they are supported in their careers by family and friends, and have a sense of their own autonomy and competence at work. However, while they take pride in their work, strongly identify with their profession, and are committed to the industry, respondents are not necessarily optimistic about the future of their profession and would not unconditionally recommend it to others. Ultimately, the survey shows that there are indeed significant challenges facing people working in architecture. Respondents in the sample, on average, report substantially lower levels of subjective quality of life than national norms. This suggests an urgent need to examine the drivers of this phenomenon and to work towards improving the levels of wellbeing in the Australian architecture community.

The context of the COVID-19 pandemic does warrant some caution in the interpretation of findings reported here. At the time the survey was administered, Australia was well into the second year of the pandemic, and at the time both Melbourne and Sydney were experiencing 'lockdown' conditions. This context was addressed specifically in a small number of the survey questions, but should also be considered in any reading of the results of the survey overall.

Further caution should be exercised in generalising or extrapolating from the findings reported here to all people working in architecture in Australia. Nevertheless the sample is large (2,066 individuals) and the conclusions are therefore important.

In this report the survey findings are structured into four parts. Part one reports on the demographic and work-related characteristics of the survey respondents. Part two addresses respondents' accounts of the impact of study and work on their wellbeing. Part three reports on multi-item measures including wellbeing, career, experiences at work, and workplace climate. Part four reports on participants' responses to a limited number of open-ended, qualitative questions about their own experiences and observations about the profession as a whole.

There is some deliberate repetition in the report, to cater for the needs of different audiences. In particular, there are three levels of detail on the findings – the *Executive summary* provides a concise snapshot; *Survey Findings: a summary* contains a brief but expanded summary. *Survey Findings: detailed discussion* presents evidence and discussion of individual survey questions, interpreted through graphs and tables. Readers can delve into the level of detail and specificity that best suits their interest.

As the first formal outcome of a larger research project, this report presents important findings that require further investigation in the future. Active community engagement will be needed to address and engage with the issues, and resources will be required to assist the community to improve wellbeing in areas that are deficient.

A series of further research activities and outcomes will follow this report. These include correlating the findings of this survey with the separate but related survey of architecture students, which focuses on work cultures and wellbeing in the educational context. The research team will use the results of both surveys to develop questions and priorities to be further examined in a series of focus groups. The findings of these surveys and focus groups will be discussed and debated at various industry forums and events. Finally, the survey will contribute to the ultimate goal of the larger project – the development of tailored resources to support architecture-based workplaces, professional organisations and education providers to work towards improving occupational wellbeing through cultural change.

Executive Summary of key findings

Survey responses suggest that personal wellbeing is an urgent area of concern for the architectural profession.

In particular, the survey of architectural practitioners indicates that:

- ***People working in architecture have a lower-than-average quality of life compared with Australian norms, with surprisingly low personal wellbeing scores, elevated levels of psychological distress, and higher-than-average levels of burnout.***

- ***Half of the respondents (50%) reflected that their work in architecture had had a generally positive effect on their wellbeing, while just under half (42%) reported that their career had had a generally negative impact on their wellbeing.***

- ***Many respondents were committed to their profession and took pride in their work but said they would not necessarily recommend a career in architecture to others.***

- ***Better personal wellbeing was most strongly associated with higher levels of career satisfaction, career support, relatedness to others, career optimism, and career balance.***

- ***Some career stages were perceived as having a negative impact on wellbeing, in particular, periods spent looking for work, the process of becoming registered as an architect, and becoming a parent / having caring responsibilities.***

- ***Negative effects on work-related wellbeing in architecture cannot be solely or even largely attributed to perfectionism.***

- ***The strongest correlates of career satisfaction for participants were a greater sense of optimism about their career, a stronger sense of connectedness to others and greater autonomy at work.***

- ***When respondents reflected back on their education, the largest proportion considered it to have had an overall negative effect on their wellbeing.***

- ***Lower levels of satisfaction with remuneration were associated with poor wellbeing.***

- ***A substantial percentage of respondents reported working more hours than they were contracted to work, on a regular (weekly or daily) basis.***

- ***More than one-third of respondents said their actual working hours exceeded 45 hours per week, and nearly 10% said they worked more than 55 hours weekly.***

- ***Some work practices had a substantial impact on wellbeing, with compressed timelines, unrealistic deadlines, and inadequate resourcing of projects (including inadequate fees) being associated with poorer wellbeing.***

- ***The impact of COVID-19 was mixed: respondents' assessment of their quality of life in 2021 compared with before the pandemic was split closely between those whose wellbeing had worsened (38%), was unchanged (35%), and had improved (27%).***

2 About the survey

Survey background and context

This report, and the survey it addresses, are part of a larger research project, 'Architectural Work Cultures: professional identity, education and wellbeing' (known as the *Wellbeing of Architects* project), funded by the Australian Research Council Linkage Projects scheme (LP190100926, 2020-2023). This comprehensive three-year study is one of the first to use interdisciplinary, qualitative and quantitative methods to consider how workplace cultures and professional identity affect wellbeing in architecture. It thus lays the foundations for practical improvements in the future.

The *Wellbeing of Architects* research project engages with three core constituent groups:

- Practitioners: people working in architecture, broadly defined (see 'Definitions' below).
- Students: people enrolled in architecture courses at tertiary level, including recent graduates and Higher Degree Research students.
- Academics and academic leaders: people teaching architecture at a tertiary level who are engaged with the design and delivery of curriculum, as well as the pastoral care of students.

This survey addresses the first constituent group only. A second, follow-up survey is planned in 2023, in the third and final year of the *Wellbeing of Architects* project. This will offer the chance to compare findings with this 2021 survey, and add a longitudinal element to the project.

This document is complemented by a second report, addressing the project's survey of architecture students, also conducted in 2021.

More detail on the theoretical and methodological background for the survey are laid out in *Appendix 1: Theoretical framework and methodological design.*

Survey participants defined as those 'working in architecture'

Disciplinary work cultures in architecture are shared by, and encultured within, a wide architectural community – including those doing 'architectural' work within other built-environment fields, and those who support and enable architectural work to take place but do not, themselves, have an architectural education. Both of these groups are represented by relatively small numbers in this survey. Those working in recognised architectural practices, (who may or may not be formally registered architects) were by far the largest group of respondents. The range of participants invited to respond to the survey included:

- registered architects
- people with an architectural education who are not registered but are working in architectural practice
- people not formally educated in architecture working in support roles in architectural practice
- people with an architectural education working in aligned professions and fields
- people with an architectural education currently looking for work or on a career break
- people who consider themselves to have 'left' architecture, but who have experiences in relation to work-related wellbeing they wish to share
- people working in architectural practice who are also studying architecture
- architectural practitioners who are also teaching architecture

Given that the survey sought to understand the complex intersection of professional identity, work cultures, and wellbeing in architecture, it was appropriate to include this wide cross-section of participants.

Definitions

A number of key terms are employed throughout this report:

Wellbeing	For the purpose of the survey and the wider *Wellbeing of Architects* project, subjective wellbeing is understood in terms as described by the Government of Victoria (Department of Health 2015, following Diener et al. 2002): *Wellbeing is not just the absence of disease or illness. It is a complex combination of a person's physical, mental, emotional and social health. Wellbeing is linked to how you feel about yourself and your life … Decades of work on the concept of 'subjective wellbeing' have accumulated to show that 'subjective wellbeing' can be measured in population surveys and the measures are valid, robust, and reliable.*
Subjective Quality of Life	The survey used the Australian Unity Wellbeing Index which is part of an annual survey that has been conducted by Deakin University and Australian Unity for the past 20 years to assess the personal wellbeing (subjective quality of life) of Australians. The index contains an overall single item measure ('how satisfied are you with your life as a whole?') and a multi-item scale capturing an assessment of personal wellbeing across seven life domains; 'your standard of living', 'your health', 'what you are currently achieving in life', 'your personal relationships', 'how safe you feel', 'feeling part of your community', 'your future security'. Together these add up to a total score ranging from 0 to 100, referred to as the 'personal wellbeing index'.
Basic psychological needs	'[A] universal and innate nutrient for optimal functioning, personal growth and integration, well-being and social development' (Brien et al., 2012, p. 168–9). These needs are described as 'the needs for autonomy (to feel free to choose and organise one's life), relatedness (to feel efficient in negotiating life's challenges), and competence (to have positive and beneficial interactions with others)' (Brien et al., 2012, p. 168).
Career agency	'[C]areer agency is the ability to participate in one's own career and engage in proactive career behaviors to help direct career and educational development to reach envisioned goals.' (Praskova & Johnston, 2021).
Perfectionism	'Perfectionism is commonly conceived of as a personality style characterized by striving for flawlessness and setting of excessively high standards for performance accompanied by tendencies for overly critical evaluations of one's behavior' (Stoeber & Otto, 2006, p. 295). This concept has two forms including 'perfectionistic strivings [which are] high personal standards and self-oriented perfectionism'; along with 'perfectionistic concerns [which are] concerns over mistakes, doubts about actions, socially prescribed perfectionism, and perceived discrepancy between actual achievements and high expectations' (Stoeber & Otto, 2006, p. 296). The former is referred to as 'standards,' the latter as 'discrepancy'.
Professional identity	Professional identity has been defined as 'the relatively stable and enduring constellation of attributes, beliefs, values, motives, and experiences in terms of which people define themselves in a professional role' (Ibarra, 1999, p. 764–65).

Survey aims

The aims of the survey were to:

- understand the work-related wellbeing of people working in architectural practice (broadly defined)
- understand how self-reported work-related wellbeing in architecture may be linked to other occupation-related factors including career stage, working conditions, and sense of professional identity
- develop questions and priority areas to be explored in more depth in later focus groups and interviews
- contribute to the development of tailored resources to support architectural workplaces, professional organisations and educational institutions, as they work towards improved occupational wellbeing through cultural change

Survey method and structure

A detailed account of the survey methods and framework is included in *Appendix 1: Theoretical framework and methodological design.*

The survey was composed of five sections as follows:

1. questions about work, remuneration and hours worked
2. questions about the impact of study and work on wellbeing
3. multi-item measures on career, work, and well-being
4. questions about personal characteristics
5. qualitative questions allowing for open-ended text-based answers

Survey procedure and sample

The survey was conducted online in July and August 2021. It took participants around 15 minutes on average to complete. This report is based on a sample of 2,066 anonymous respondents who were recruited through professional networks and communications addressed to the Australian architectural profession – namely through call-outs in professional media including *ArchitectureAU* (ArchitectureAU editorial 2021; Stead and Gusheh 2020), *Parlour* (Stead 2021a), and the ACA website and newsletter (Stead 2021b), as well as through notifications and presentations to the project's industry partners, and through social media. The project was approved by Monash University's Human Research Ethics Committee (Project id: 27252), and all respondents were assured of confidentiality and anonymity.

3 Survey findings: a summary

This chapter presents a summary of survey findings presented in four parts:

- Part 1 reports on respondent characteristics (Table 1)
- Part 2 reports on the impact of study and work on wellbeing (Table 2)
- Part 3 reports on the multi-item measures that included wellbeing, career, experiences at work, and workplace climate (Table 3)
- Part 4 reports on the results of the open-ended qualitative questions.

For a detailed discussion of the survey findings, including graphs, see the next chapter of this report: '3: Survey Findings: detailed discussion'.

Part one: about the respondents

Personal characteristics

More than half of the respondents were female (56%), the largest group was aged between 26 and 45 (61%), and the majority lived in New South Wales (41%) and Victoria (29%). More than two-thirds of respondents were born in Australia and for those born elsewhere, the largest proportion were born in north-western Europe or south-east Asia. This sample broadly correlates with the current demography of Australian architectural population across age, state of residence and country of birth (Architects' Accreditation Council of Australia, 2018). There is however an over-representation of women amongst survey respondents, compared with the current demographic profile of the profession, most recently reported as 31% female (Matthewson 2018).

Approximately one-third of respondents reported having some kind of caring responsibility. This most often referred to 'shared care of dependent children' followed by 'elder care'. Women were more likely (39%) than men (31%) to say they had unpaid caring responsibilities, in particular for the 'sole care of dependent children' and to some degree for 'shared care of dependent children'.

Work-related characteristics

More than half of the respondents said that they were registered as an architect in Australia or elsewhere (63%). Ten percent said that their registration was in process and a further 27 percent reported that they were not registered architects. Respondents were generally working in 'permanent or ongoing positions' rather than being 'contract or casual' or 'self-employed'. Most respondents worked in private architectural practices (86%) rather than other related fields (e.g. 'heritage and conservation', 'interiors', 'urban design').

A large proportion of respondents were working in senior positions such as 'director – partner – principal', 'associate directors – senior associates', 'associates', and 'project leaders'. There was an even distribution across other architectural roles and a low number of allied workers in associated positions like 'administration – finance', 'business support' and 'communications – graphics'. Career tenure of respondents also varied with 55% reporting they had worked in the profession for more than 10 years.

Over one-third of respondents reported having taken a career break at some time, most commonly for parental leave or travel, and to a lesser extent for mental wellbeing. When disaggregated by gender, clear differences appeared, suggesting gendered patterns in career breaks. Women were more likely to take a career break for parental leave, caring responsibilities or mental wellbeing, while men were more likely to take a career break to accommodate life transitions – such as time off between jobs, moving house, or migration (as recorded in the 'other' category).

Satisfaction with remuneration

An analysis of respondents' satisfaction with their remuneration revealed two clear groups within the sample: nearly half expressed satisfaction with their current level of remuneration and nearly half expressed dissatisfaction. This split was reflected in the analysis of gender differences but slightly more women expressed satisfaction compared with men. Those identifying as nonbinary or transgender expressed a lower level of satisfaction than both male and female respondents.

There was an increase in satisfaction by age. Those under 36 years old expressed the most dissatisfaction with their level of remuneration. There were few differences across employment status but those who were employed in more senior positions (e.g. 'director – partner – principal') were generally more satisfied with their level of remuneration, as were those in administrative or business support positions. Those working in private practice were most likely to be dissatisfied with their current level of remuneration compared with those in universities and not-for-profit organisations.

Comparing hours worked to hours paid

Most respondents reported being contracted to work between 36 and 45 hours per week, and few were paid to work beyond 45 hours per week. However, more than a third of respondents said that their

actual working hours exceeded 45 hours, and nearly 10 percent of respondents said that they worked more than 55 hours per week. In response to a question about how frequently they were requested to work more than their contracted hours, just over half of respondents said 'now and then' or 'never', but more than a third reported being asked to work more than their contracted hours on a regular basis (i.e. 'daily' or 'weekly').

Analysis of gendered differences in overtime showed that men were slightly more likely to be asked to work more than their contracted hours and were asked to do so more frequently than women. Analysis of working hours by age showed few consistent results, but those aged between 46 and 55 were more likely to work more than their contracted hours and were most likely to be asked to do so.

Part two: impact of education and work on wellbeing

Wellbeing and educational context

Where applicable, respondents were asked to reflect on the effect that studying architecture in the past had had on their wellbeing. In some cases this meant remembering back years or even decades, so these responses should be treated with some caution. Nevertheless, more respondents reported their studies to have had a negative impact on their wellbeing (49%) than a positive one (39%). The stages of study that had the most positive impact were the 'year out' (namely a period of work experience often taken between the three-year Bachelor degree and the two-year Master of Architecture), as well as other kinds of work experience, and 'graduation'. Negative effects were associated with the periods of study at the 'end of semesters', and the 'final year of education'.

When asked to reflect on which subject areas might have affected wellbeing positively, most respondents identified 'electives' and 'history and theory'. Negative effects were associated with 'design'. Positive experiences were associated with study processes such as 'individual work', 'tutorials' and 'studio', while more negative associations were attached to 'public presentations' and 'group work'.

Wellbeing and work context

There was a clear divergence in responses about the overall impact that working in architecture had had on the respondents' wellbeing. Half reported an overall positive impact and nearly half reported a generally negative impact.

When asked what work-related factors had the most negative impact on wellbeing, respondents identified the 'time available to complete work', the 'requirement to work outside normal hours', the 'amount of work', and 'pressure on self'. 'Interpersonal relationships' and the 'nature of the work' were most often reported as having no negative impact on wellbeing. (Note: this was a negative-weighted question, in which the most positive possible response was 'no impact'. This was part of a series of three negative-weighted questions.)

The career stages that had the most negative impact on respondents' wellbeing were 'periods of looking for work' and 'undergoing the process of formal registration'. The career stages most likely to have no negative impact on wellbeing where 'working in the first architectural job' and 'periods of taking leave'.

Respondents were also asked about the top three industry factors that had the most negative overall impact on their wellbeing. 'Timelines or deadlines' were the main issues cited by respondents followed by 'fees' and 'contractual arrangements'. Each of these issues was listed as at least one of the top three factors for half of the respondents in the sample.

Part three: multi-item measures

Personal wellbeing

The wellbeing of respondents was assessed through a series of validated, multi-item measures that addressed subjective quality of life, levels of psychological distress, and burnout. The advantage of

using these established measures is that they enable comparison with 'normed' responses from other professions and demographic groups, including the Australian population as a whole.

Overall, the results in this section suggested that the wellbeing of the respondents was poor – characterised by overall subjective quality of life measures well below the Australian population, elevated levels of psychological distress, and high levels of burnout.

More than a third (38%) of respondents reported that their quality of life was either somewhat or very much worse at the time of the survey compared with the beginning of COVID-19. What was perhaps more surprising was the proportion of respondents whose lives were reported to be 'about the same' (35%) or either 'somewhat' or 'very much better' (27%). Given the duration and severity of the pandemic and associated public health measures in Australia, this was unexpected.

Respondents' subjective quality of life was substantially lower than the Australian norm in 2020 (Cummins et al., 2021). This suggests that personal wellbeing is an urgent area of concern for the architectural and built environment community.

Scores for individual items within this measure indicate that specific areas of concern are 'future security', 'health', and 'current achievements in life'. Furthermore, on average, mild levels of psychological distress were evident in the sample, with higher-than-average levels of anxiety and depression. These measures of personal wellbeing and psychological distress have been used extensively in other studies and have well-established norms across multiple populations. Therefore, it is important to understand the drivers of low levels of wellbeing in this community and how to address them.

Career adaptability

Respondents' capacity to cope with and manage change or deal effectively with unforeseen circumstances varied across the measures used in this study. Higher scores for career 'agency' indicate that respondents have a strong capacity to reflect on and manage their career. Scores on the other career adaptability measures of 'balance', 'support', 'optimism' and 'satisfaction' are slightly above the midway point for these measures. However, within these, the items that were less likely to be endorsed were those related to being inspired or excited by their careers ('career optimism'), having the capacity to balance multiple life roles ('career balance'), and satisfaction with income goals ('career satisfaction').

Experiences at work

Respondents tended to rate their sense of professional identity and professional commitment at moderate levels. The pattern of scores across individual items indicated that respondents' sense of connection to their industry forms a strong part of who they are, and that they care for and value their profession. However, they were less able to endorse items that characterised architecture as a great profession in which to work.

Despite this, fulfilment of basic psychological needs was rated at a higher level than is demonstrated in studies in other populations, indicating that our respondents felt more able to have control over their actions at work ('autonomy') and have the skills and ability to carry out their work effectively and reach their desired goals ('competence'). However, 'relatedness' was rated lower than in other studies, suggesting a weaker connection to others within the sample. It should be noted however that restrictions related to the COVID-19 pandemic, which included work-from-home mandates in Sydney and Melbourne where a large portion of the sample were located, may have had an impact on this specific result. This will be further assessed in the follow up survey.

Overall, the assessment of workplace climate led to moderate ratings for both workplace morale and perceived organisational support. Respondents took pride in their work and reported that their organisation also took pride in their accomplishments. However, the items 'there is a lot of energy in the workplace' and 'my organisation really cares about my wellbeing' were rated lower. The measures related to working life showed that respondents recorded high levels of burnout with scores well above

the midpoint. Finally, respondents' levels of perfectionism were broadly equivalent to other studies. The pattern of scores in this measure reveal what is known as 'healthy perfectionism', where respondents express a tendency to strive for excellence, at much higher levels than a tendency towards self-criticism.

Additional analysis indicated that career satisfaction, a sense of relatedness to people at work, and career support from family and friends were most strongly related to a better quality of life. In general, positive experiences in career (e.g. career balance) and work (relatedness, workplace morale, perceived organisational support) were associated with better quality of life and lower levels of anxiety, depression, and burnout.

It was interesting to note that high scores in perfectionism (measured by high standards) were related to a higher quality of life and only weakly related to higher levels of anxiety and burnout. However, perfectionism (when measured by high self-criticism) was more strongly related to poor personal wellbeing and higher levels of anxiety, depression, and burnout. This suggests that, despite the association between personal qualities and wellbeing (i.e. perfectionism), there are important workplace elements that could be improved in order to increase the wellbeing of those working in the architectural community.

Part four: qualitative measures

In general, responses to the qualitative measures corroborated the findings of the rest of the survey, but provided greater depth, detail, and cross-referencing of issues. Overwhelmingly, respondents felt that there were pressing problems with work-related wellbeing in architecture.

The majority of respondents framed these issues in systemic terms, seeing them as related to working conditions and cultures in the profession as a whole, including conditions imposed from outside, rather than the actions or decisions of individuals. Many respondents highlighted a need for cultural change within the profession.

In general, the qualitative responses emphasised four interrelated elements affecting wellbeing in architecture: financial management (the effects of fees and pay); time management (the effects of timelines, deadlines and overtime); the valuing and valuation of architectural services; and the need for collective action.

Architectural employees were seen to bear the burden of underpayment and overwork due to under-resourcing of projects based on inadequate fees charged. Participants believed that this phenomenon reinforced expectations of normalised and frequent overtime, often without additional payment or time-in-lieu. Many felt that workers in architecture were expected to sacrifice their own personal time and remuneration for the good of their employer, their client, or the profession as a whole.

Many participants stated that they felt the architecture profession, and more particularly the design services it provides, are undervalued both by allied built environment professions, and by the general public in Australia more generally. This includes a misunderstanding of the role of the architect, and an under-appreciation of the value of design per se. What was striking was the extent to which this undervaluing is seen to cause tangible problems for wellbeing within the architecture profession.

4 Survey findings: detailed discussion

This chapter presents a detailed discussion of findings based on individual questions, illustrated through graphs, as well providing some analysis.

Part one: about the respondents

Personal characteristics

This section reports baseline personal information about the people who responded to the survey. Questions were asked about gender, age, residence, country of birth and caring responsibilities. This information enabled comparison of the survey results against other studies, and to conduct more detailed correlational analysis about the experiences of particular groups within the research cohort.

The figures below capture the responses.

Figure 1 displays the distribution of gender in the survey sample. More than half of the respondents identified as female, 43% as male and less than one percent as nonbinary or transgender.

Given that the population of nonbinary and transgender respondents is quite small in relative terms, caution should be exercised when comparing responses from this group with other gender categories. However, the researchers considered that it was important to acknowledge and include the responses of the nonbinary and transgender cohort separately, in order to recognise the distinct nature and experiences of this group. (Note: respondents were able to tick more than one box, so for example a respondent could identify as both female and transgender.)

Overall, the sample features an over-representation of women (56%), compared with the demographic profile of the architectural population in Australia as a whole, where the most recent national figure is 31% (Matthewson 2018). This should be borne in mind in the analysis and interpretation of the findings, and will be taken into account by the researchers in later, detailed correlational analysis.

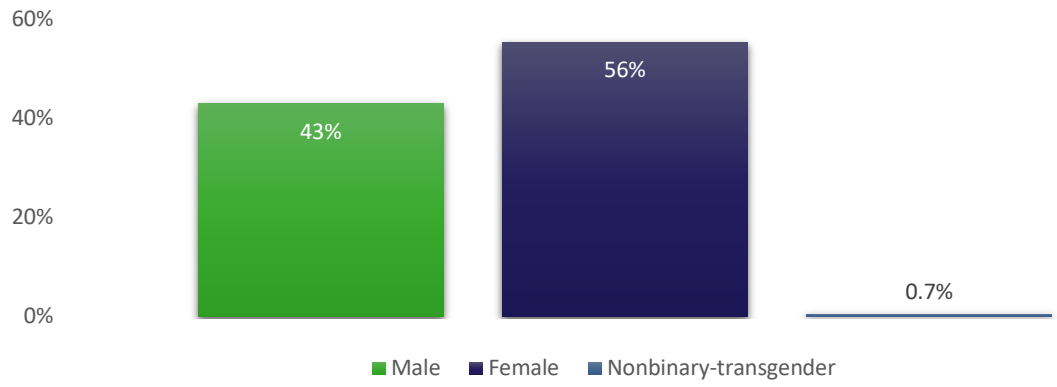


Figure 1: Gender of respondents

Respondents to the survey were at the younger end of the age scale, and Figure 2 shows that more than half of respondents were aged between 26 and 45. This reflects the national data as reported in Parlour's 2016 Census report, which mapped the demographic profile of those who self-identified as working in architecture in the Australian National Census of Population and Housing (Matthewson, 2018. p. 9–11).

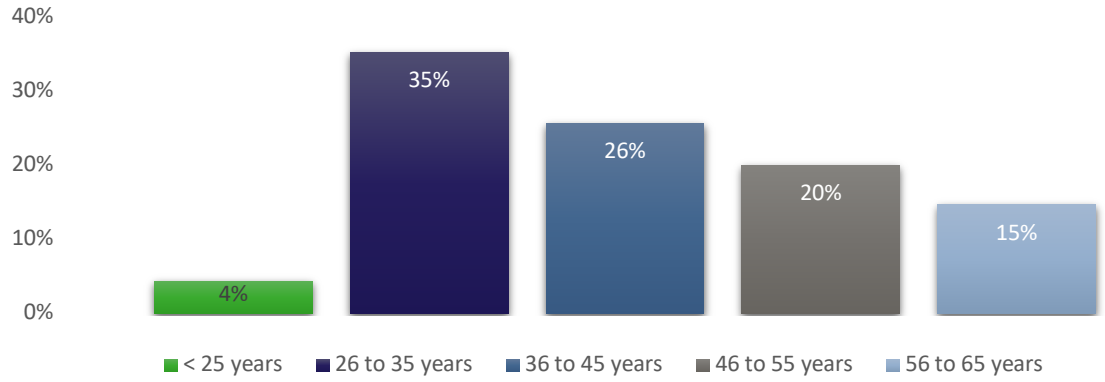


Figure 2: Age of respondents

Figure 3 shows that the largest number of respondents lived in New South Wales and Victoria, which broadly reflects the distribution of architects in Australia (Architects' Accreditation Council of Australia, 2018).

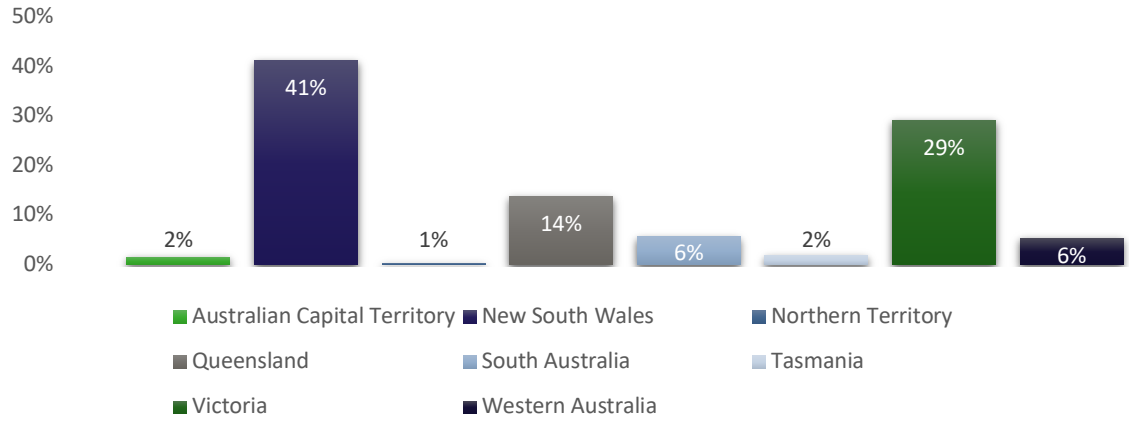


Figure 3: State of residence

Over two-thirds of respondents were born in Australia, which is consistent with the general population of Australia (Australian Bureau of Statistics, 2021). Figure 4 shows that for those respondents born elsewhere, the largest group was born in 'north-west Europe'. There were also a substantial number of responses from 'south-east Asia', the 'Americas' and 'Oceania'.

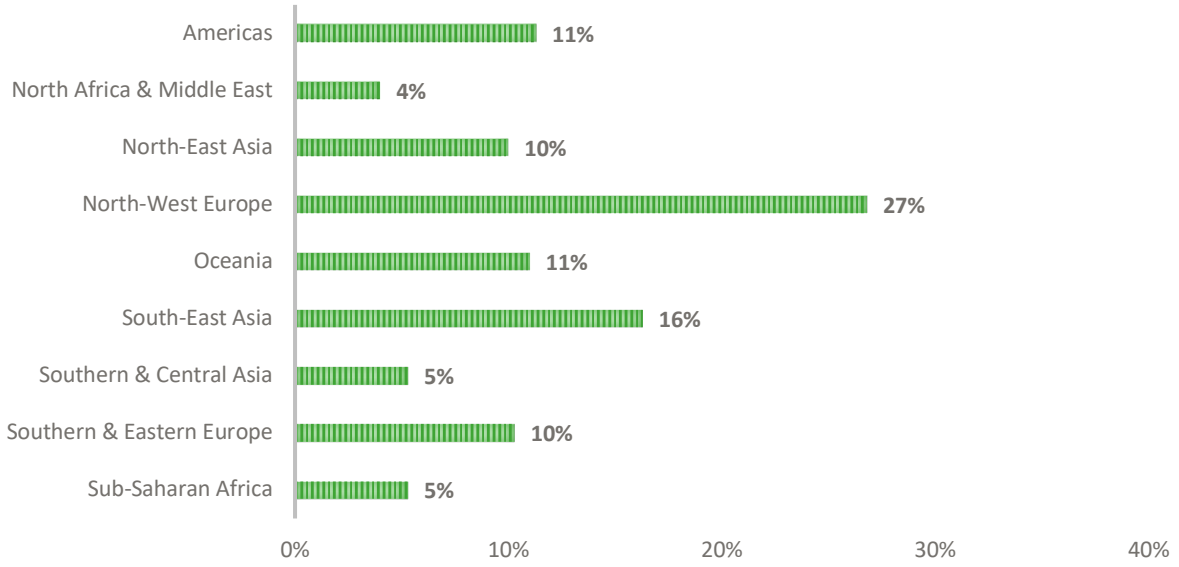


Figure 4: Place of birth for those not born in Australia

Thirty-four percent of the sample reported unpaid caring responsibilities. Figure 5 shows that of this group, most reported that this was for 'shared care of dependent children', or to a lesser extent, 'elder care' and 'occasional care for others'.

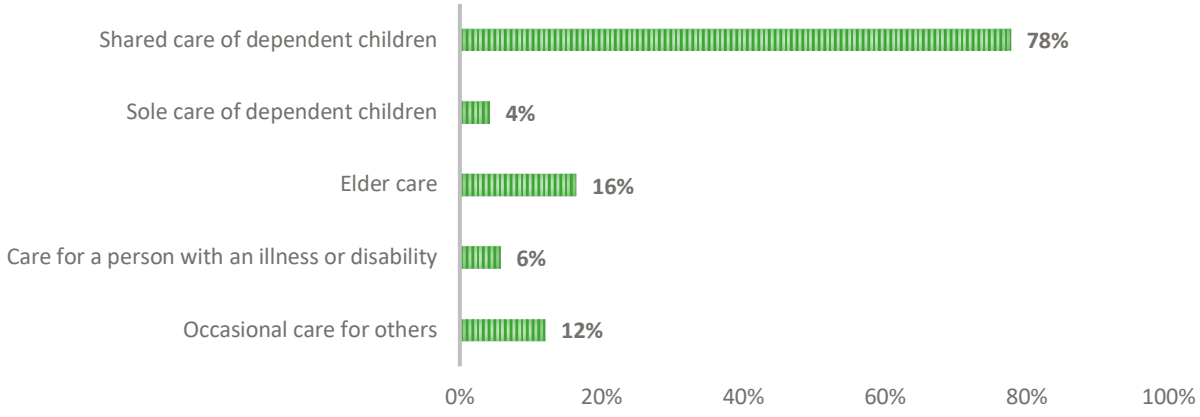


Figure 5: Types of caring responsibilities

Sixty-one percent of those who reported unpaid caring responsibilities were women. Figure 6 shows that women formed the largest group of unpaid carers for most types of caring responsibilities. Responsibilities for 'occasional care of others' were evenly split between men and women.

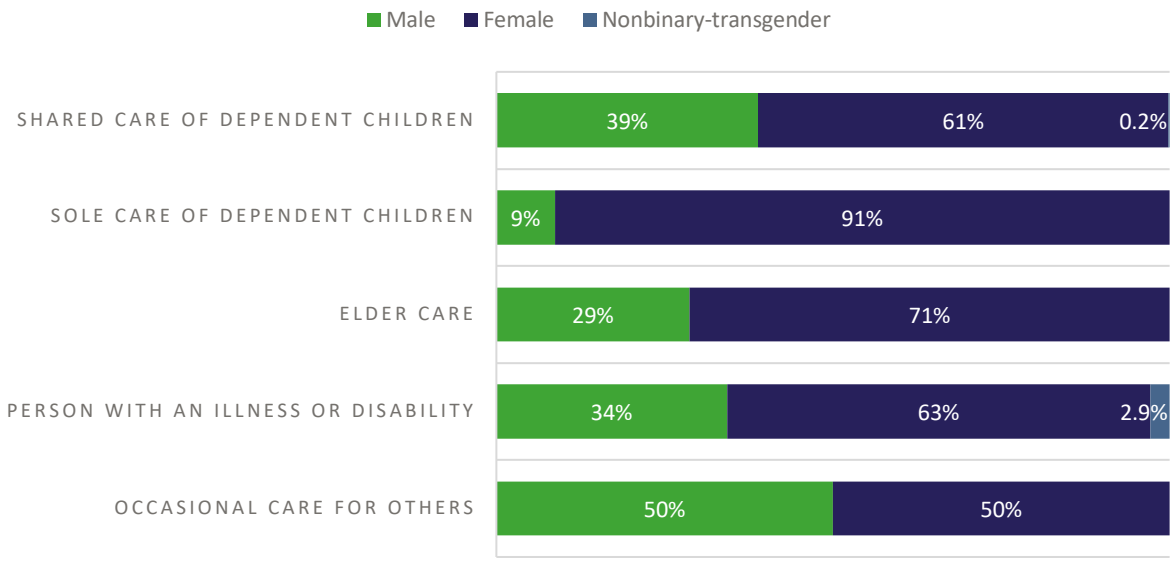


Figure 6: Caring responsibilities by gender

PERSONAL CHARACTERISTICS - KEY FINDINGS

Response snapshot:

- The survey sample broadly correlates with the current demography of Australian architectural population across age, state of residence and country of birth. There is however an overrepresentation of women among the survey respondents.

Notable analysis:

- Of those who reported unpaid caring responsibility 61% were women, with women significantly more likely (91%) to provide unpaid sole care for dependent children. This finding echoes recent studies by Parlour (Matthewson, G., Hocking, A. 2020).

Work-related characteristics

This section reports on baseline information about the professional work that respondents do. Much like the first section, this provides a useful snapshot of the respondents and their work life. Respondents were asked about their employment status, how long they had worked in the profession, what type of organisation they worked for, their role and registration status, and whether they had taken a career break.

Figure 7 shows the registration status of respondents. Sixty-three percent of respondents were registered architects, with nearly all being registered in Australia. A further 10% reported that their registration status was in process. Nearly a third of respondents said they were not registered architects. It is not known whether this figure accurately reflects the proportion of registered architects in the general architectural workforce, however Census data collated by Parlour suggests this is generally representative (Matthewson, 2018. p. 9–11).

Fifty-one percent of the respondents who were registered architects were women, which is higher than the proportion of architects who are women in Australia (reported as 31%; Architects' Accreditation Council of Australia, 2018). However it is also well established that the proportion of registered women in the profession is consistently trending upward.



Figure 7: Registration status

Figure 8 shows that most respondents were employed on a permanent or ongoing basis with only 23% reporting themselves to be self-employed or employed on a casual or contract basis.

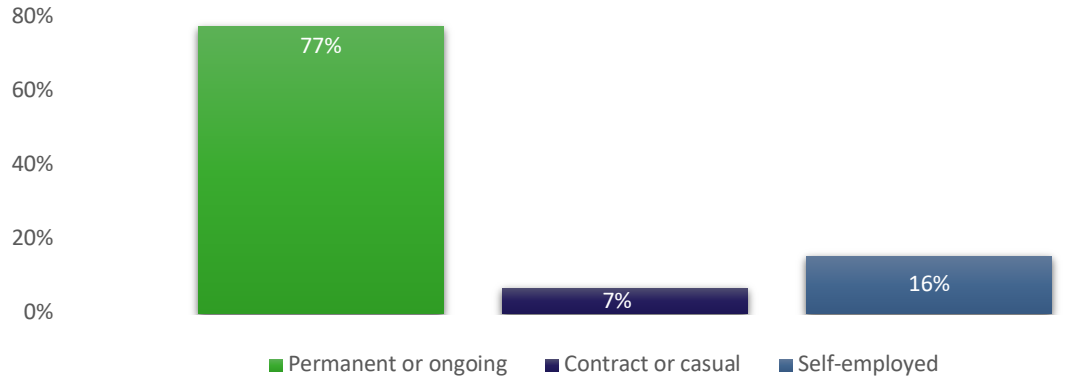


Figure 8: Employment status

Tenure of respondents was fairly evenly divided across time periods. Figure 9 shows that just under half have been employed in architecture for under ten years and just over half have worked in architecture for more than 10 years.

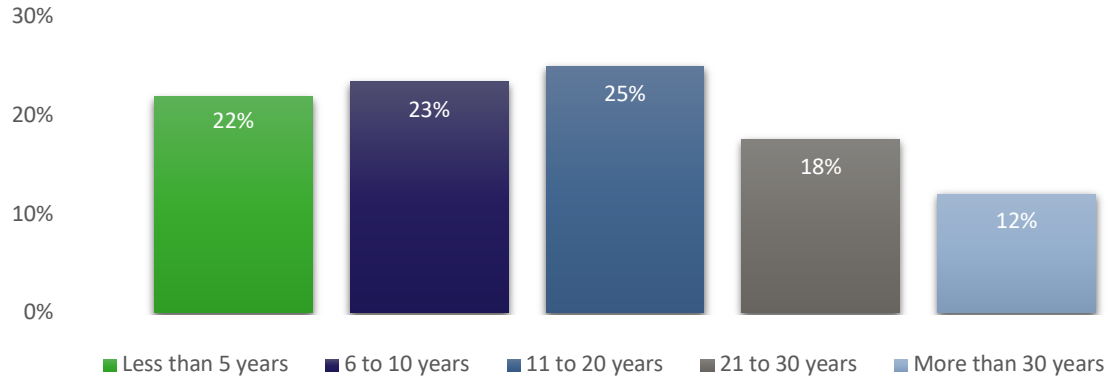


Figure 9: Career tenure

Figure 10 displays the distribution of roles for respondents in the sample. More than one third of respondents were working in senior positions, such as 'director – partner – principal', 'associate director – senior associate'. A substantial proportion held other leadership positions (e.g. 'associate', 'project leader'). Given the relatively high proportion of respondents who had been working in practice for more than ten years, this is not unexpected.

Very few respondents were working in administration or business support positions (e.g. 'practice management', 'communications').

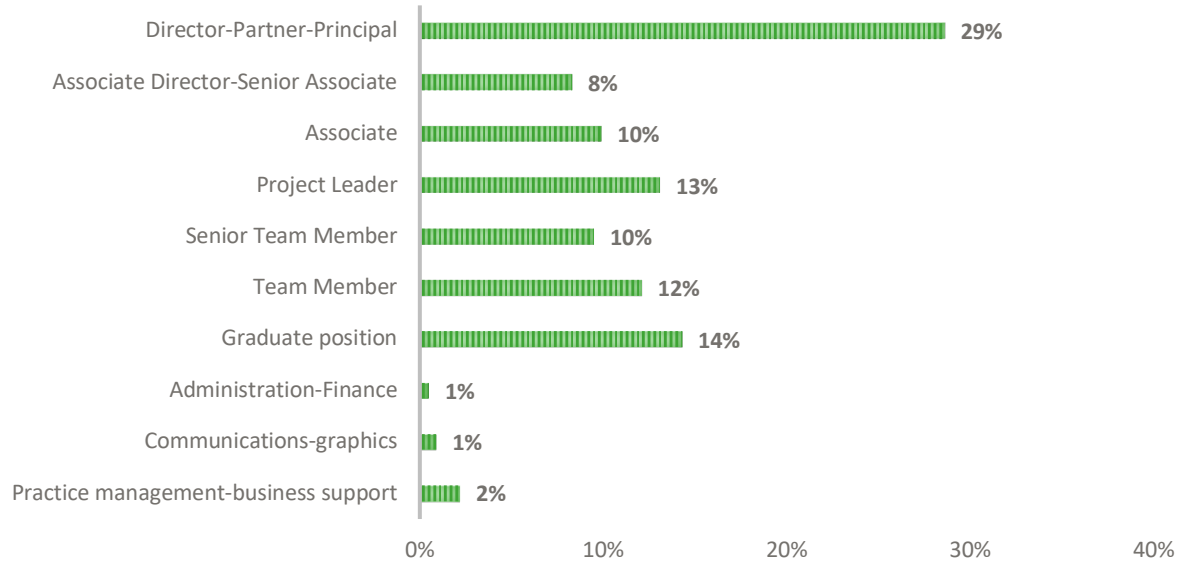


Figure 10: Seniority

The survey was directed at people 'working in architecture' broadly defined, so it includes people doing architectural work in aligned fields. Figure 11 shows that most respondents worked in private architectural practices (68%) and one quarter worked in private multidisciplinary practices. Very few respondents worked in government and less than 5% of respondents reported working in universities, not-for-profit and media.

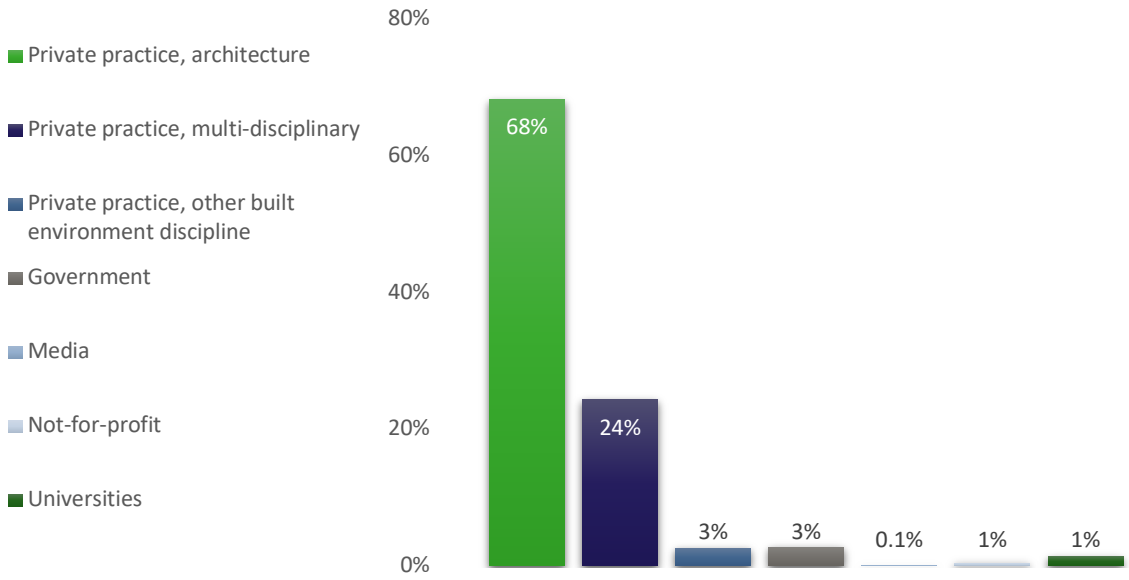


Figure 11: Type of organisation or practice

Figure 12 shows that the majority of survey respondents defined their current field of work as 'architecture'. Some respondents said they worked in 'interiors' but a combined total of less than 10% of respondents were working in the fields of urban design, landscape architecture, project management or heritage and conservation. It should be noted that all respondents considered themselves to be 'working in architecture' according to the broad definition outlined in Chapter 2, so these categories are most likely to represent individuals trained in architecture, working in an aligned field.

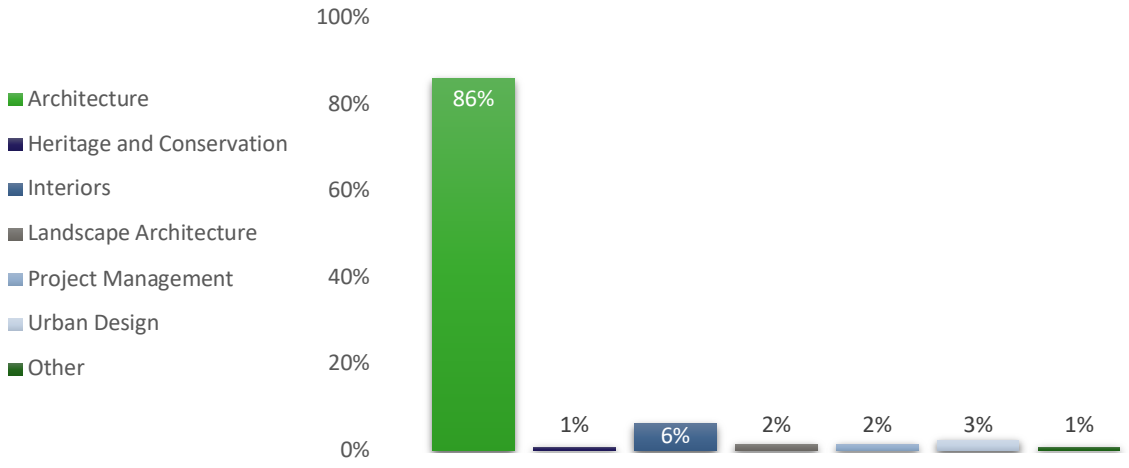


Figure 12: Fields of work

Thirty-seven percent of respondents said they had taken a career break at some time. Figure 13 shows that the main reasons for a career break were 'parental leave' or 'travel', followed by breaks for 'mental wellbeing' and 'pursuing other work'. Fewer respondents said they took a career break for 'physical illness', 'life transitions' (e.g. moving house) or 'unemployment'. It is notable that of the 37% who *had* taken a career break, nearly a quarter had done so in order to support their mental wellbeing. This is a striking result as it equates to roughly one in ten of all survey participants.

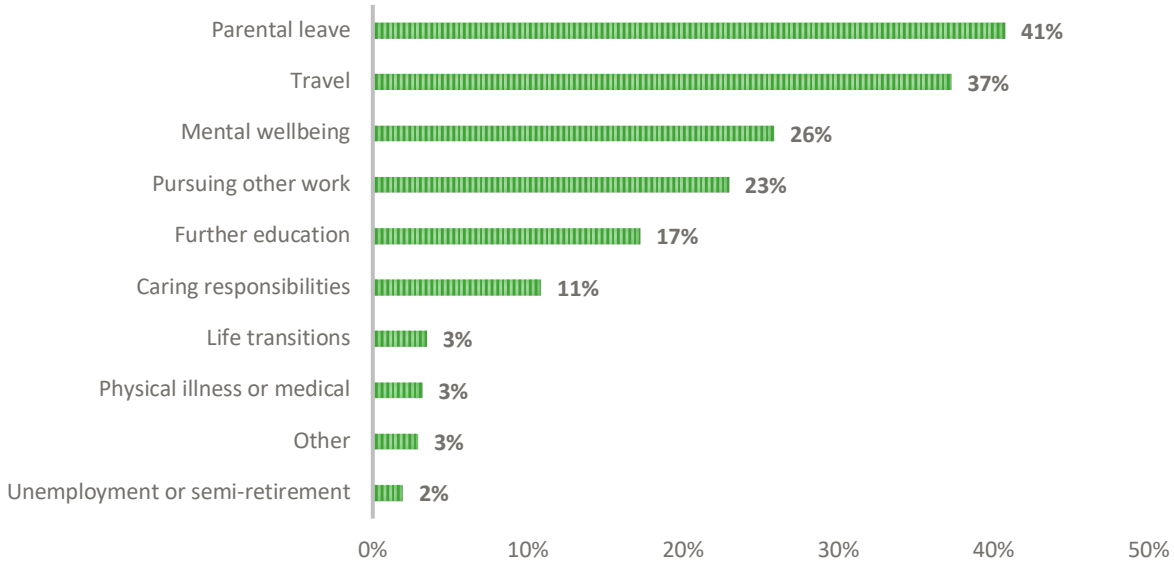


Figure 13: Reasons for career breaks

Sixty-nine percent of respondents who had taken a career break were women. Figure 14 shows that women were more likely to take a career break for 'parental leave', 'caring responsibilities' or 'mental wellbeing', while men were more likely to take a career break to accommodate 'life transitions' (which were described in the 'other' category as including reasons such as time off between job roles, moving home, or migration). It is notable that of nonbinary and transgender respondents a majority reported taking career breaks because of 'physical illness or medical' reasons, and due to periods of 'unemployment or semi-retirement'.

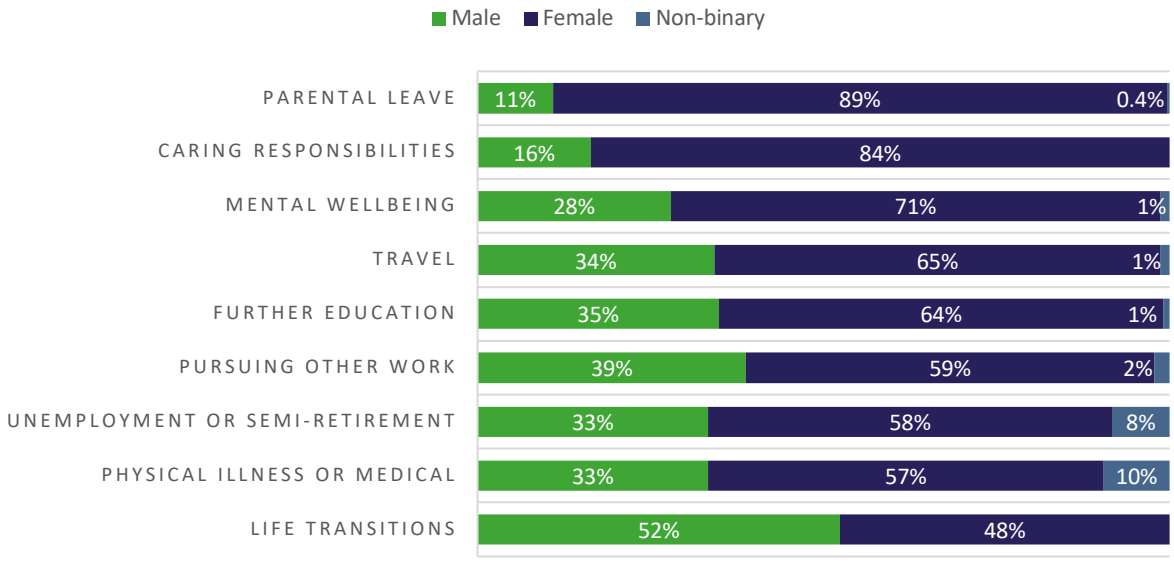


Figure 14: Career breaks by gender

WORK-RELATED CHARACTERISTICS – KEY FINDINGS

Response snapshot:

- More than half the respondents were registered architects (63%), with nearly all being registered in Australia. A further 10% reported that their registration status was in process. It is not known if this figure accurately reflects the proportion of registered architects in the general architectural workforce, however Census data collated by Parlour suggests this is generally representative.
- Most respondents worked in private architectural practices within the architectural field rather than in other areas (e.g. 'heritage and conservation', 'interiors'). Most respondents worked in a 'permanent or ongoing' role (77%), and the largest group described themselves as 'Director – Partner – Principal' (29%). There was an even distribution across other roles, and by career length. Fifty-five percent of respondents had worked in the profession for more than 10 years.

Notable analysis:

- Over a third of respondents reported having taken a career break, most commonly for 'parental leave' (42%), travel (37%) and 'mental wellbeing' (26%). The last of these is a notably high proportion.
- When disaggregated by gender, clear differences appeared in the results, suggesting gendered patterns in career breaks. Women were more likely to take a career break for 'parental leave', 'caring responsibilities' or 'mental wellbeing', while men were more likely to take a career break to accommodate 'life transitions'.

Satisfaction with remuneration

When asked 'How satisfied are you with the level of your current remuneration?' respondents were given five options on a scale ranging from 'very dissatisfied' to 'very satisfied'. The results show a clear divide between two groups, one in the positive and one in the negative. There was a surprisingly high proportion of respondents (43%) who were either somewhat or very dissatisfied with their remuneration. These divided results were tested against other personal and work factors to understand the reasons for the distinction between the two groups.

Figure 15 shows the overall satisfaction with remuneration within the sample. There were two clear groups with one expressing satisfaction with their current level of remuneration (39%) and the other larger group expressing dissatisfaction (43%).

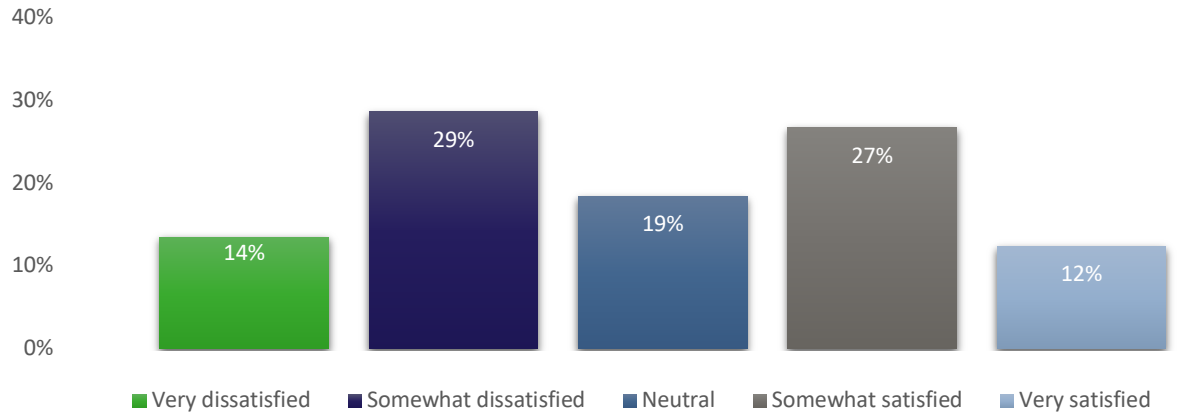


Figure 15: Satisfaction with remuneration

There were some differences for satisfaction with remuneration across gender. Figure 16 shows that women were slightly more satisfied with their level of remuneration than men. Those who identified as nonbinary or transgender reported a much higher level of dissatisfaction with their level of remuneration (noting the small sample size of this population).

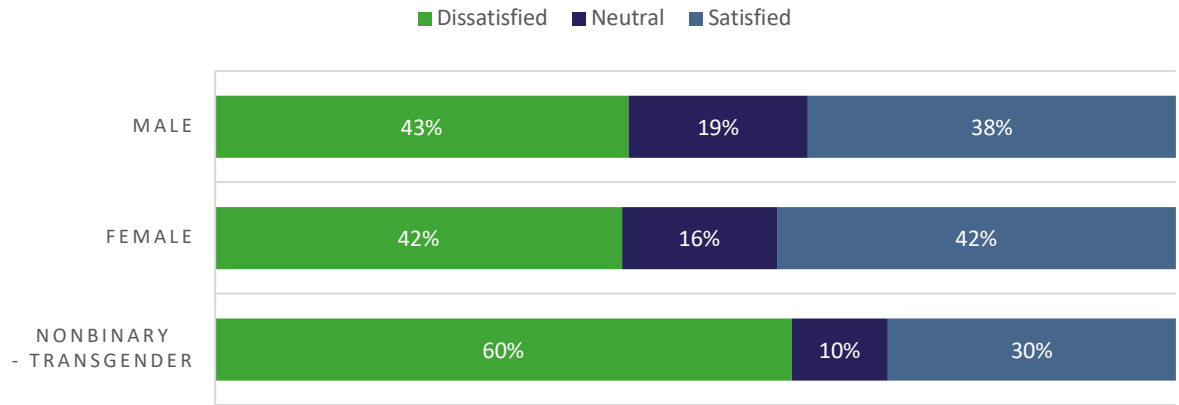


Figure 16: Satisfaction with remuneration by gender

Age was a significant factor in respondents' satisfaction with their level of remuneration. Figure 17 shows that over half of the respondents in the 'younger' age groups (35 years or under) were dissatisfied, while those who were older than 35 years were more satisfied with their level of remuneration.

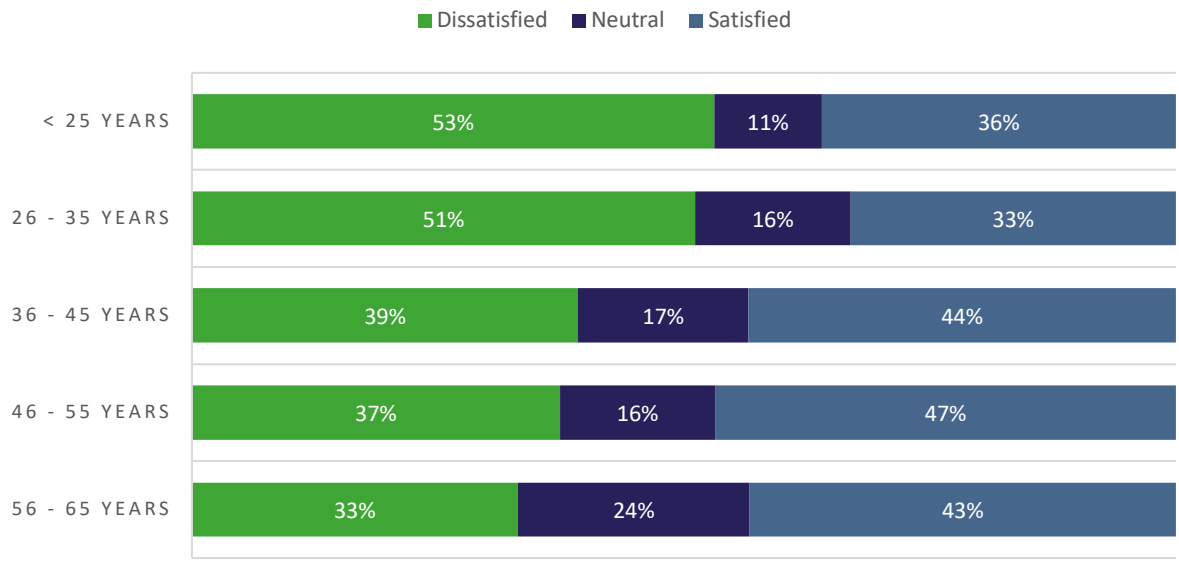


Figure 17: Satisfaction with remuneration by age

Employment status had little bearing on respondents' satisfaction with their level of remuneration. Figure 18 shows that nearly half of the respondents who were self-employed were dissatisfied with their level of remuneration. There were only small differences between those who were employed in permanent or ongoing positions and those who were employed on a contract or casual basis.

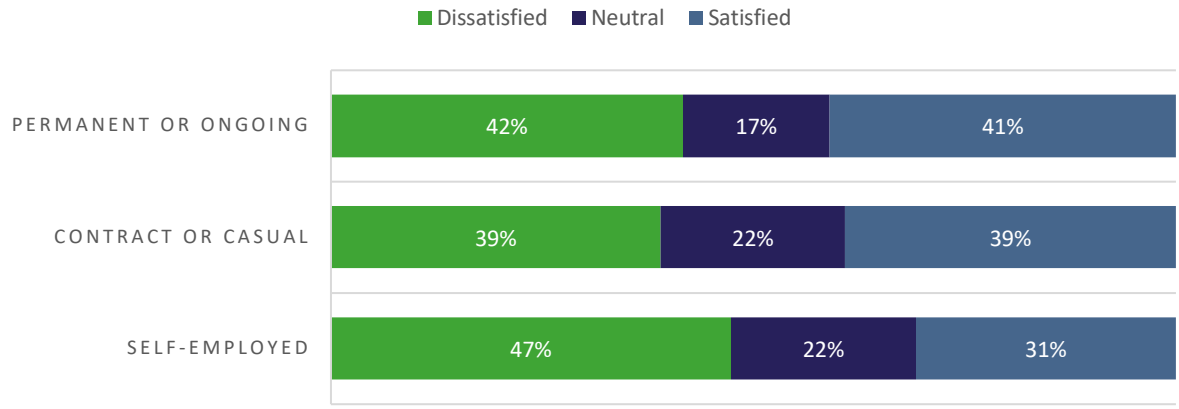


Figure 18: Satisfaction with remuneration by status

There were clear differences in satisfaction with remuneration across occupation type and level. Figure 19 shows that respondents who were employed as a 'team member', 'graduate', 'project leader' or 'senior team member' were more likely to be dissatisfied with their current level of remuneration. Those who were employed in 'communications – graphics', administration – finance' or 'practice management – business support' positions, or as 'associate director – senior associate' were the most satisfied with their current level of remuneration.

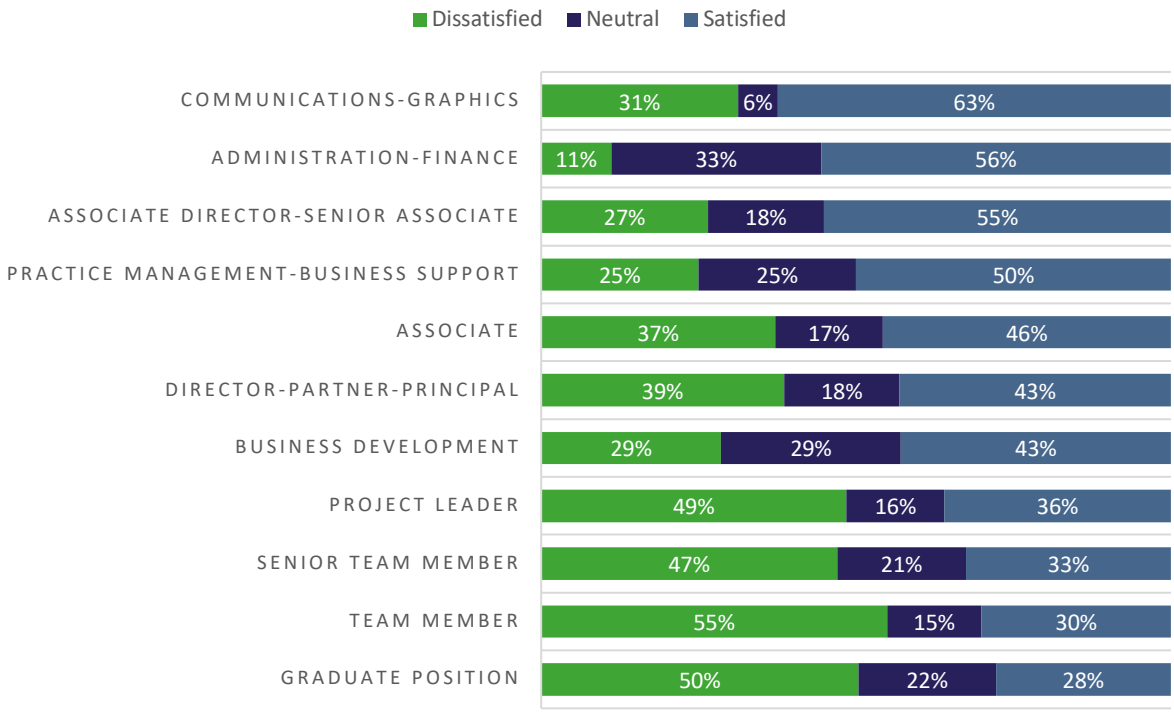


Figure 19: Satisfaction with remuneration by occupation

Figure 20 shows satisfaction with remuneration across organisation type. Those respondents who work in 'government' and 'not for profit' organisations reported greater satisfaction with their current level of remuneration (noting that numbers in these groups were small). Respondents working in private practice were more dissatisfied compared with the other groups (noting that this was by far the largest employment type in the sample).

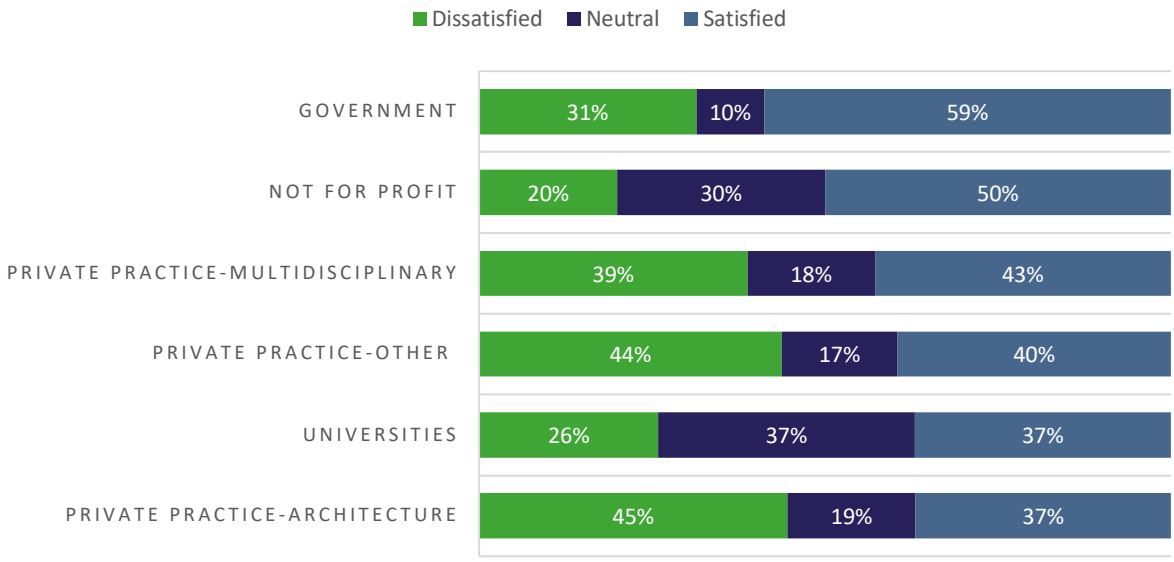


Figure 20: Satisfaction with remuneration by organisation type

Satisfaction with current level of remuneration varied substantially across disciplinary fields (noting again that those working in architecture were by far the largest group overall, and numbers in the other fields were small). Figure 21 shows that respondents working in 'architecture', 'interiors' and 'project management' have the highest levels of dissatisfaction while those respondents working in 'urban design', 'construction' and 'heritage and conservation' were most likely to report being satisfied with their current levels of remuneration.

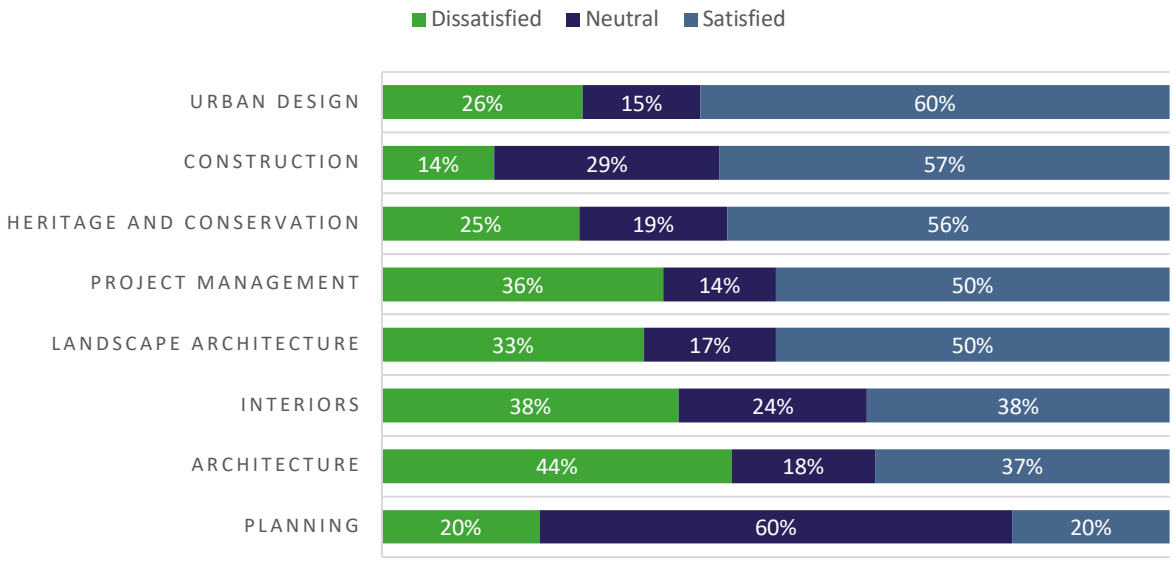


Figure 21: Satisfaction with remuneration by disciplinary field

WORK-RELATED CHARACTERISTICS – KEY FINDINGS

Response snapshot:

- The sample was split into two clear groups of approximately equal size with respect to satisfaction with remuneration; 39% were satisfied with their current level of remuneration and 43% were dissatisfied.

Notable analysis:

A high proportion of respondents was dissatisfied with their level of remuneration. There were some differences between demographic groups:

- Women were slightly more satisfied with their current level of remuneration as compared with men and nonbinary or transgender respondents. Those who identified as nonbinary or transgender were largely dissatisfied with their current level of remuneration.
- Older respondents were more likely to be satisfied with their level of remuneration, which may correlate with length of tenure and level of seniority.

There were also differences in satisfaction across occupation levels and types:

- Graduates and team members were the least satisfied with their remuneration, while those in more senior roles and administrative and management positions were more satisfied.
- Respondents working in government or not-for-profit organisations were much more satisfied with their current level of remuneration than those in private practice.
- Respondents working in urban design, construction, and heritage and conservation reported greater satisfaction with remuneration compared with those working in architecture or interiors.

Comparing hours worked to hours contracted

In this section we report on the number of hours that respondents were contracted to work, the hours actually worked, and the frequency that respondents were asked to work beyond their contracted hours (i.e. overtime). These results have been correlated against gender and age to understand the significant variance in the data.

Figure 22 includes the results of two separate questions, juxtaposed – the hours respondents were contracted to work shown beside the actual hours worked. As could be expected, 71% of respondents were contracted to work an equivalent to full-time (36–45 hours per week). Very few were contracted to work more than this. About one quarter (26%) were contracted to work fewer hours, most likely on a part-time or casual basis.

When asked how many hours they *actually* worked, over one third (37%) of full-time respondents indicated that they worked 46 hours or more.

While care must be taken in the interpretation of this graph (because it only shows relative proportions within the whole group rather than for individuals) it is revealing that, while only 4% of respondents said they were *paid to work* more than 46 hours per week, 37% of respondents said they *actually* worked more than 46 hours. This indicates a high number of overtime hours being worked. It should be noted that the survey did not enquire specifically about other means of remunerating extra hours like time in lieu.

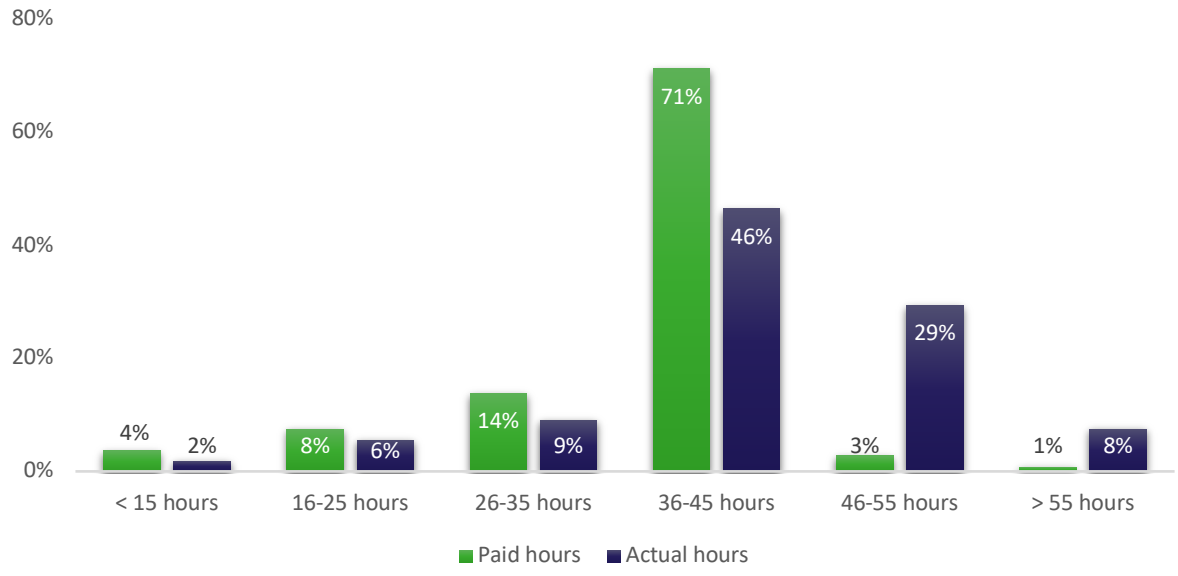


Figure 22: Comparing contracted hours to hours worked

As shown in Figure 23 below, while many respondents were only asked to work extra hours every now and then (43%), more than a third of respondents (37%) said that they were asked to work extra hours on a regular basis – either weekly or daily. It is notable that 14% of respondents reported working more than their contracted hours on a daily basis.

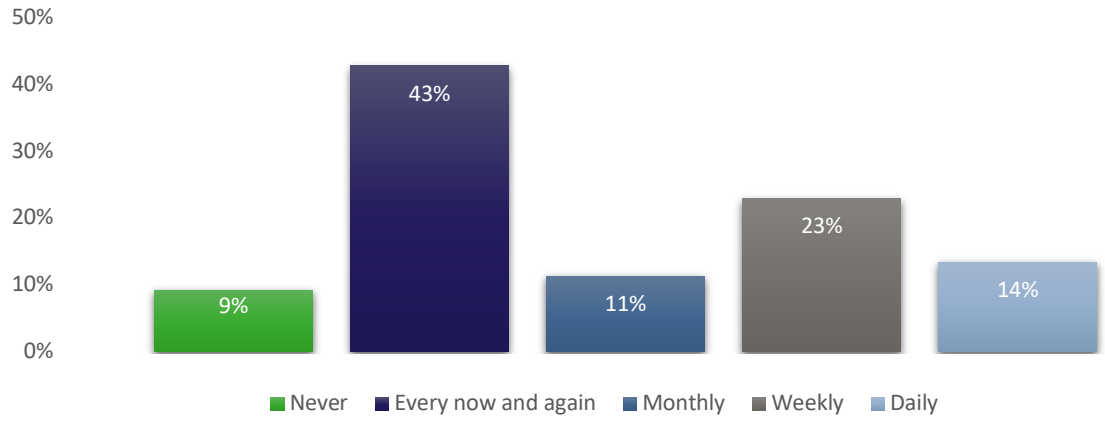


Figure 23: Frequency of requests to work more than contracted hours

Figure 24 displays actual hours that respondents worked, compared with hours they were contracted to work, by gender. It shows that men were slightly more likely than women to work a greater number of hours than they were contracted for. Those who identified as nonbinary or transgender were considerably less likely to be contracted for full time hours in the first place, but a proportion (10%) reported working between 46–55 hours.

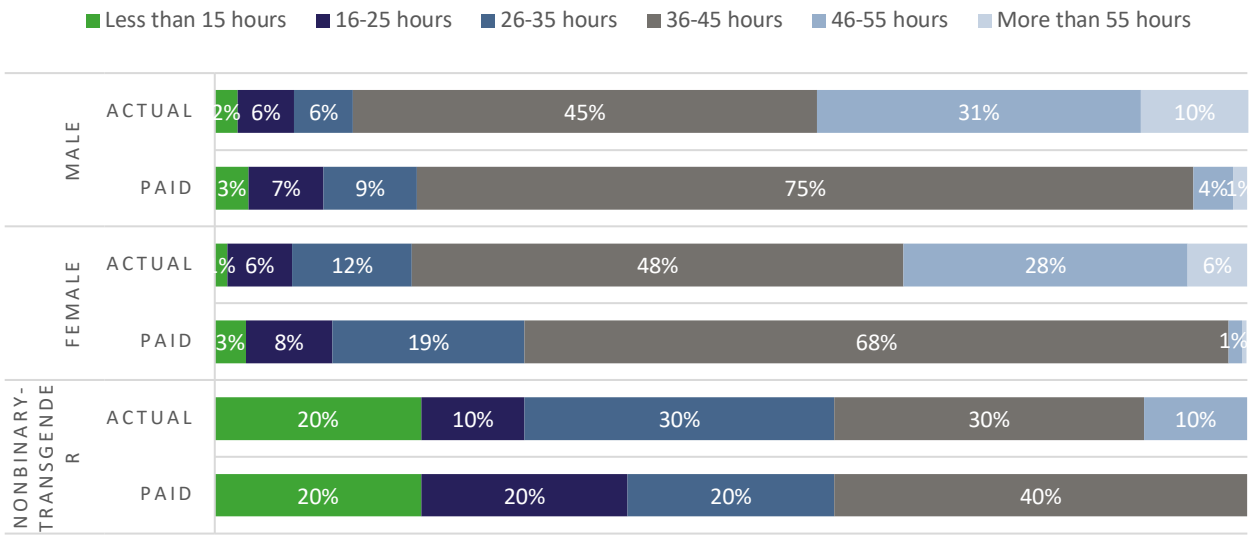


Figure 24: Comparing contracted hours to hours worked by gender

Figure 25 shows the frequency of being asked to work more hours than actually contracted, by gender. The figure shows that men were slightly more likely to be asked to work a greater number of hours than they were contracted for, on a regular basis. Nevertheless, the proportion who were regularly asked to work more than their contracted hours was high within all groups.

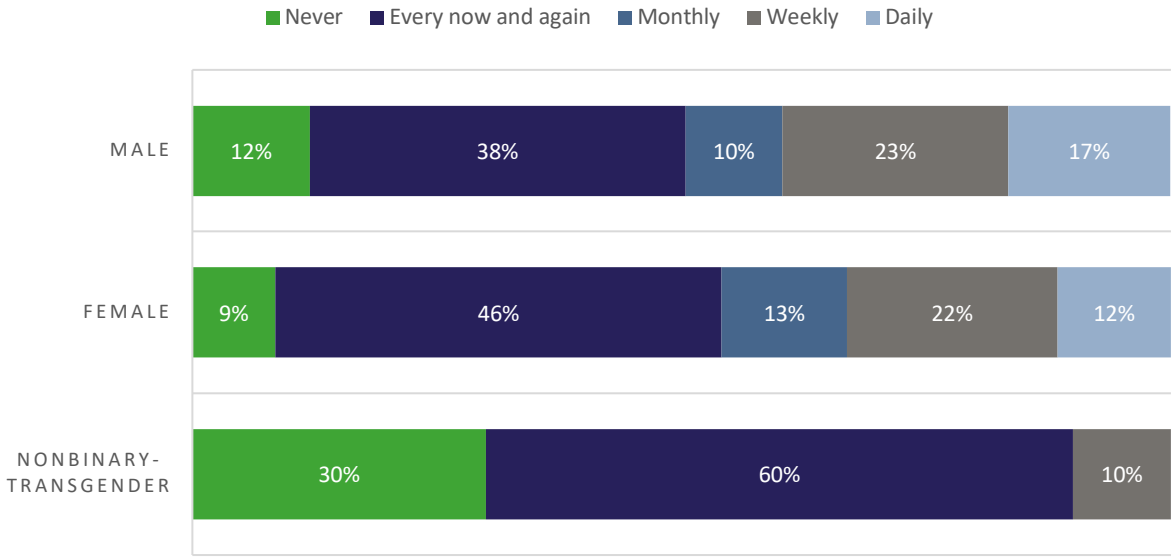


Figure 25: Frequency of requests to work more than contracted hours by gender

Figure 26 compares the hours respondents were contracted to work with the hours respondents actually worked by age. Respondents across all age groups report working more hours than they were contracted to work, but those in the 46 to 55 age group were most likely to report working more than their contracted hours.

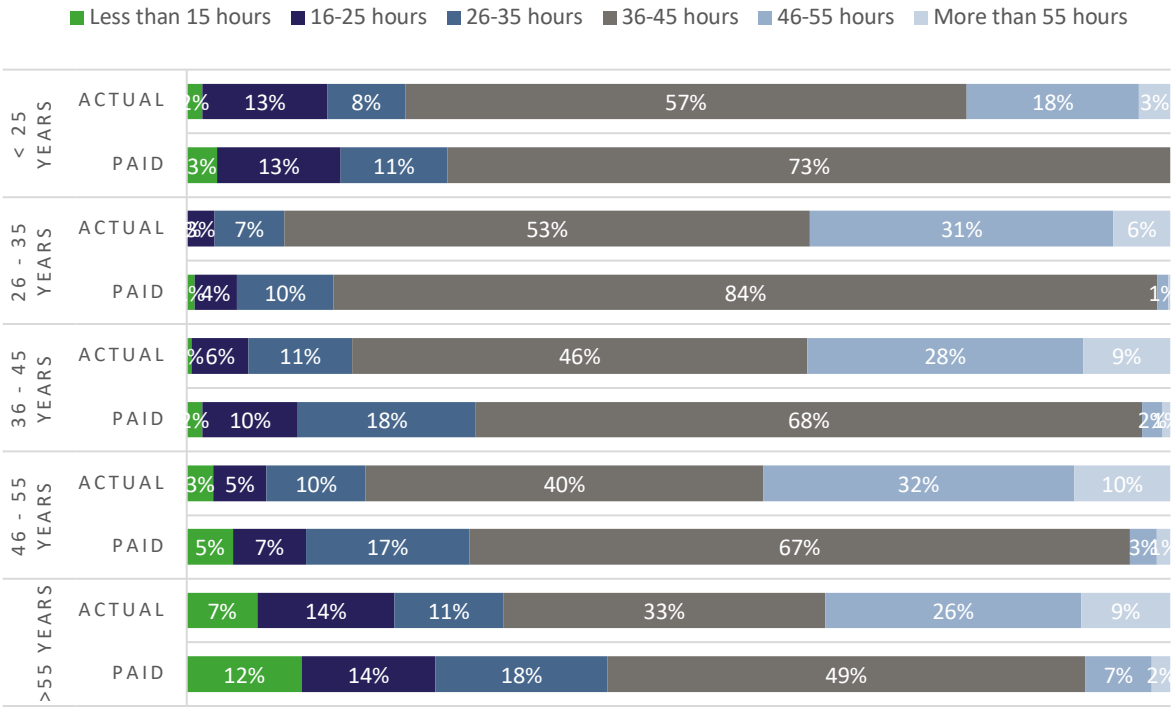


Figure 26: Comparing contracted hours to hours worked by age

Figure 27 shows the frequency with which respondents said they were asked to work more than their contracted hours. Consistent with Figure 26, respondents in all age groups were asked to work more than their contracted hours on a regular basis, but it was those in the 46 to 55 age group who were more likely to be asked to work extra hours on a 'weekly' or 'daily' basis. Figure 27 further reveals that the frequency of being asked to work extra hours on a daily basis increases with age. This may be attributable to levels of seniority or leadership roles based on length of career tenure.

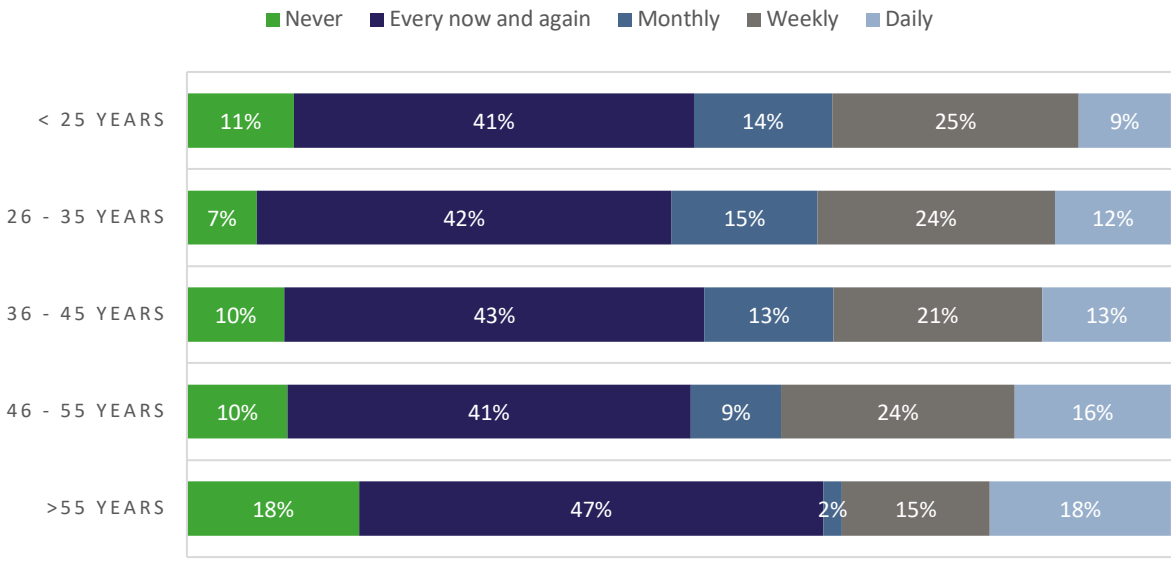


Figure 27: Frequency of requests to more than contracted hours by age

COMPARING HOURS WORKED TO HOURS PAID – KEY FINDINGS

Response snapshot:

Most respondents reported being contracted to work between 36 and 45 hours per week. However, a substantial percentage was asked to work additional hours.

Notable analysis:

- Men were slightly more likely to work more than their contracted hours, and were asked more frequently (e.g. 'weekly', 'daily') to work more hours than they were contracted for.
- Those in the 46 to 55 age group were more likely to work more than their contracted hours more frequently (e.g. 'weekly', 'daily').

Part two: education and work context

This section reports on wellbeing across the career span of the respondents, addressing wellbeing in education and work-related experiences.

The educational context

Figure 28 shows respondents' reflections on how their studies in architecture (if applicable) impacted their wellbeing. The results were divided, with 48% of the sample reporting that their studies generally had a negative effect on their wellbeing and 38% reporting that their studies had a generally positive impact. It should be noted that some respondents were reflecting back years or decades to consider this question, but the results are nevertheless valuable as a measure of perception.

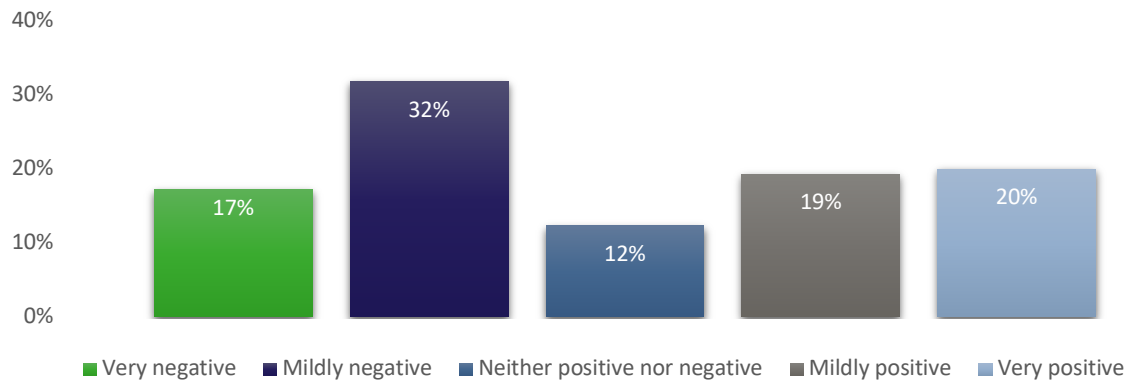


Figure 28: Impact of study on wellbeing

Respondents were then asked to reflect back and indicate the kind of impact that different *stages* of their studies had on their wellbeing. They were asked to rate their experiences on a scale from very negative (1) through neutral (3) to very positive (5) – this gradation has been aggregated below into the broader categories of negative, neutral, and positive. Figure 29 shows that the 'year out', 'work experience' and 'graduation' were the stages of study that had the most positive impact on respondents' wellbeing. The stages of study that had the most negative impact on wellbeing were the 'end of semesters', followed by 'the final year of education'.

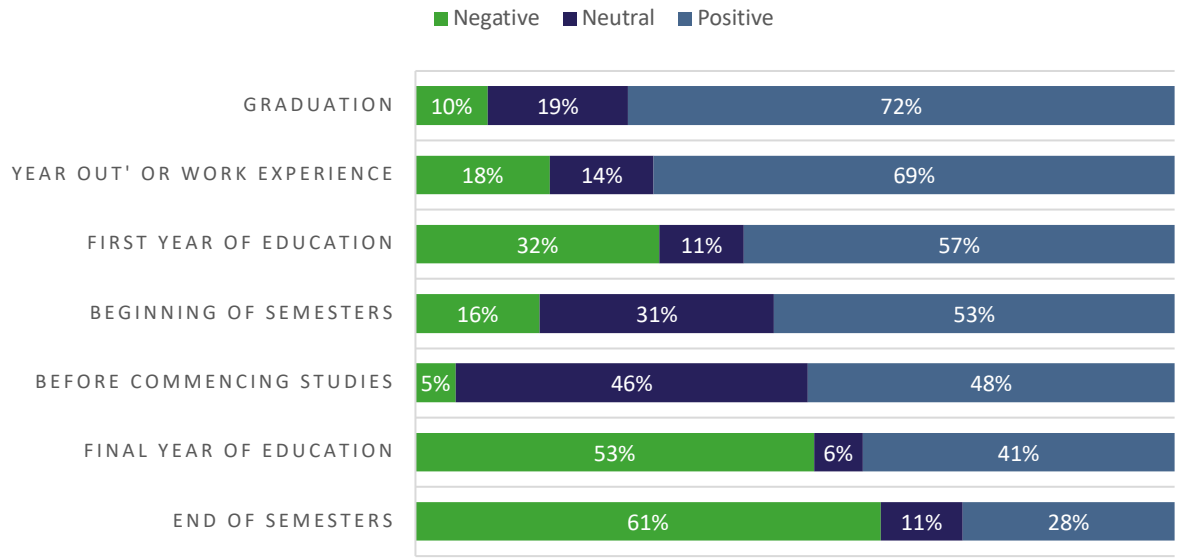


Figure 29: Impact of stages of study on wellbeing

Similarly, respondents were asked to indicate the kind of impact the different *subject areas* had on their wellbeing. Figure 30 shows that 'electives' was the subject area that had the most positive impact on their wellbeing while 'design' had the most negative impact. The high percentage (39%) of respondents who indicated that design had a negative impact is notable, as is the fact that so few respondents were neutral in their reflection on the effect of design. However, 57% of respondents also felt design had had a positive impact. This apparent polarisation will be further investigated by the research project at the next stage.

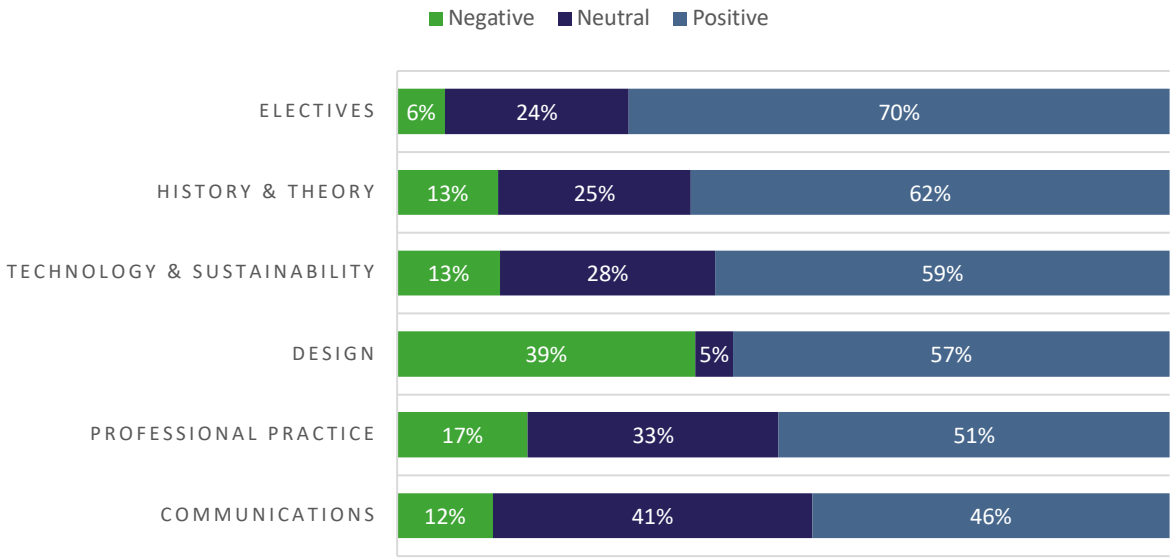


Figure 30: Impact of subject areas on wellbeing

Finally, respondents were asked to indicate the kind of impact the various *processes* of study had on their wellbeing. Figure 31 shows that 'tutorials' and 'individual work' had the most positive impact, with 'lectures' having the least negative impact. 'Public presentations' (including the 'crit' – which was a prompt in this question) had the most negative impact on respondents' wellbeing, followed by 'group work'. Note that (unlike the questions above) this is a negative-weighted question, designed to more closely examine negative effects. It should be noted that the response to 'online learning' was not influenced by the wholesale shift, during the COVID-19 pandemic, to online teaching platforms by Australian universities, as practitioners had graduated prior to 2020.

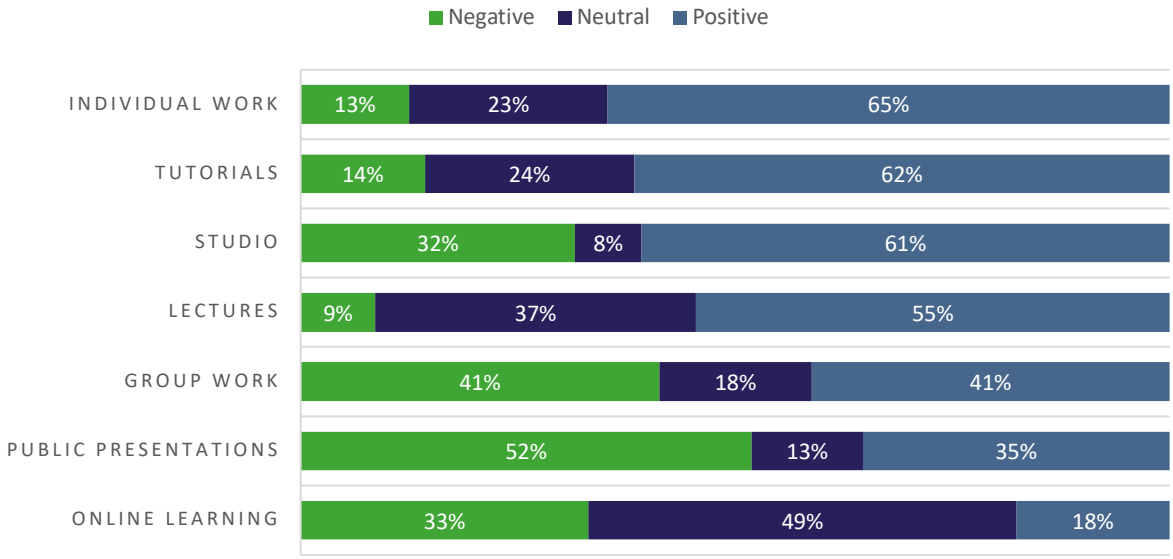


Figure 31: Impact of study processes on wellbeing

The work context

Figure 32 looks at how respondents believe their career in architecture has generally impacted their wellbeing, all things considered. Half of the sample (50%) reported that their career has had a generally positive effect on their wellbeing and just under half (42%) reported that their career has had a generally negative impact on their wellbeing. This response is strongly bifurcated, with relatively few neutral responses. While the larger proportion of respondents found the impact of work-related factors to be mildly or very positive, it is still striking that such a high proportion of respondents reported a mildly negative or very negative effect.

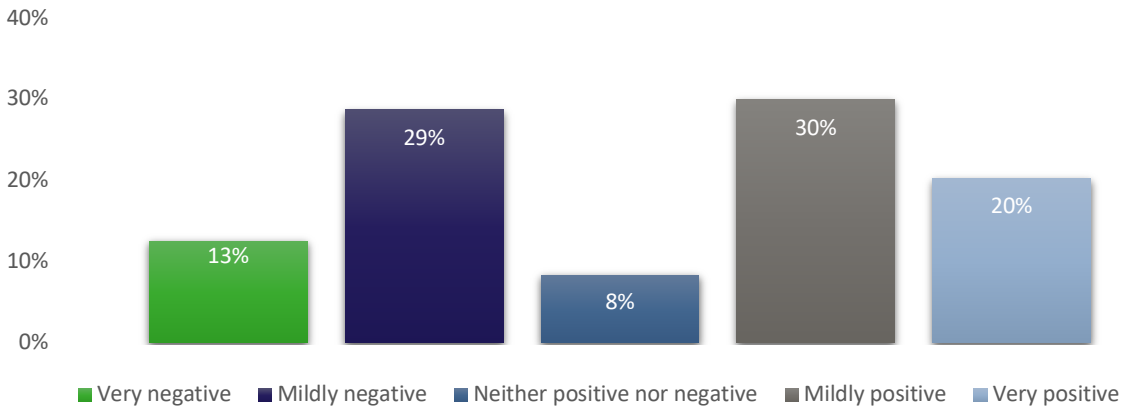


Figure 32: Impact of work-related factors on wellbeing

Respondents were asked about the negative impact of work-related factors on their wellbeing by rating their experiences of a range of factors on a scale from a very negative effect (1), to a mildly negative effect (2) or no negative effect (3). Note that this is a negative weighted question.

Figure 33 shows that 'time available to complete work', the 'requirement to work outside normal hours', the 'amount of work' and 'pressure on self' were the work-related factors that were most likely to impact negatively on wellbeing. However, 'interpersonal relationships' and the 'nature of the work' were most likely to have no negative impact on wellbeing.

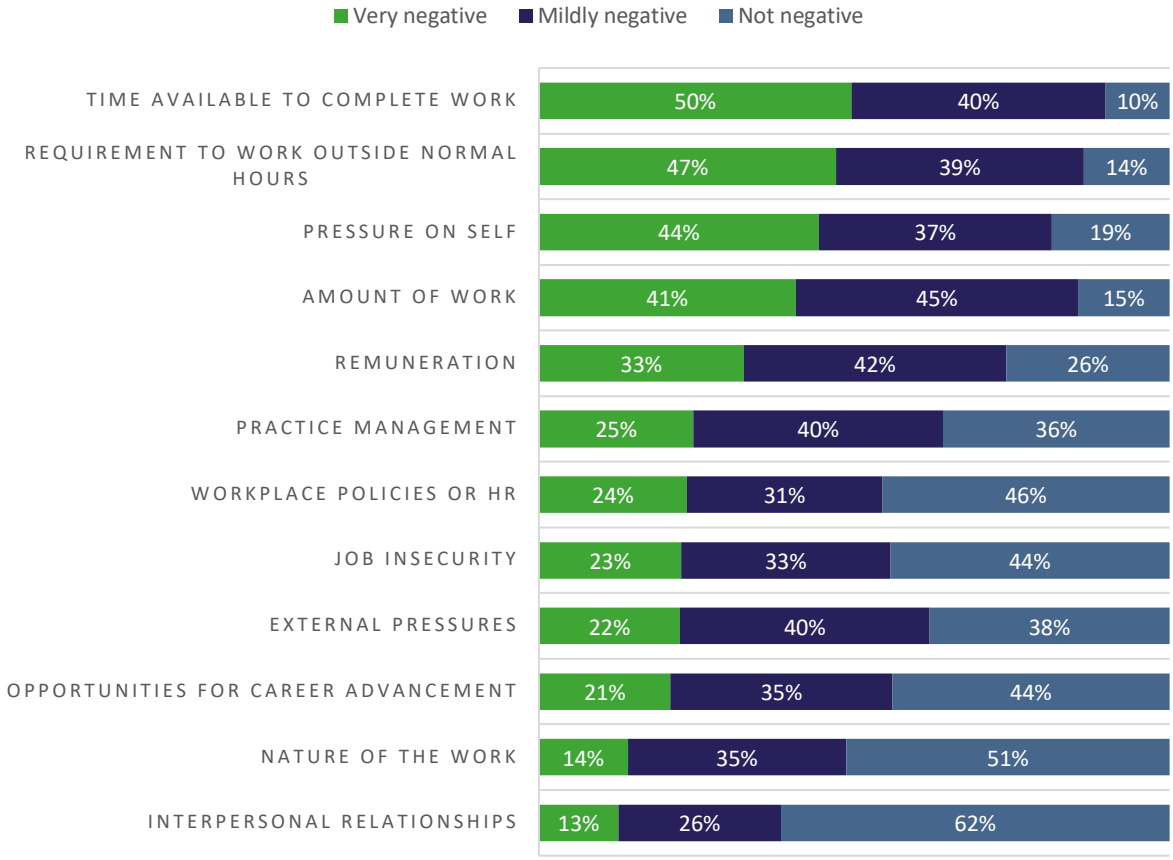


Figure 33: Negative impact of work-related factors on wellbeing

Respondents were asked to indicate the kind of impact the different stages of their careers had on their wellbeing. Figure 34 shows that 'periods of looking for work', was clearly the career stage which had the most negative effect on respondents' wellbeing, while there was a cluster of similarly-weighted responses to 'undergoing the process of registration', 'becoming a parent / caring responsibilities', and 'mid-career'. Meanwhile 'working in a first architectural job' and 'periods of taking leave' were career stages that were most likely to have no negative impact. Note this is a deliberately negative-weighted question.

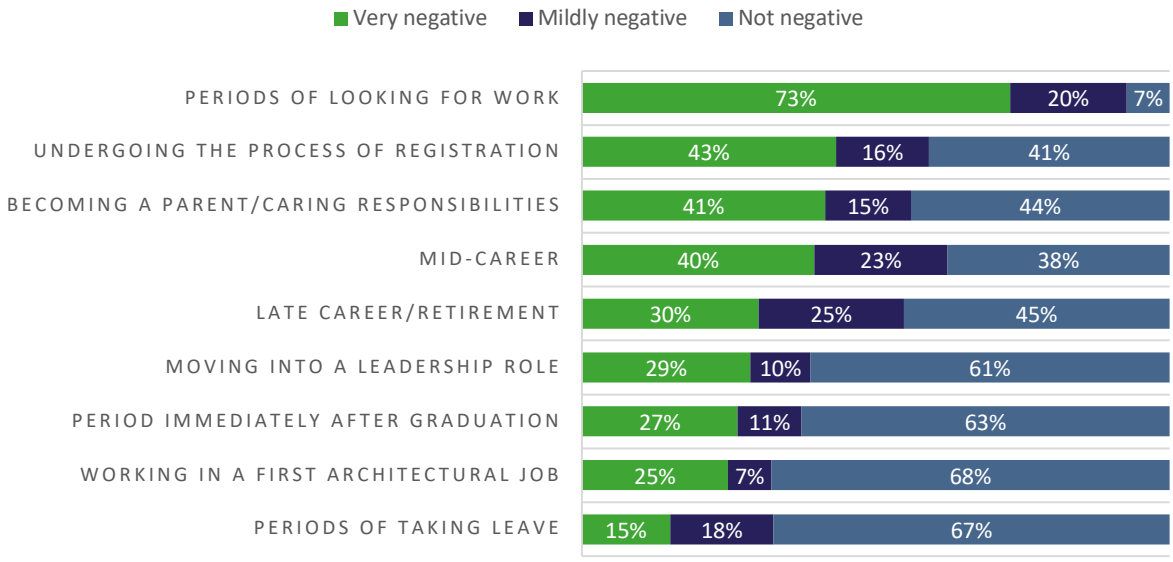


Figure 34: Negative impact of career stages on wellbeing

Figure 35 shows the top three issues to impact negatively on respondents' wellbeing. 'Timelines or deadlines' was by far the most-selected response and 'fees' was the second-most-selected, while others such as 'contractual arrangements', the 'changing role and agency of architects', 'builder relationships', and 'client relationships' also rated.

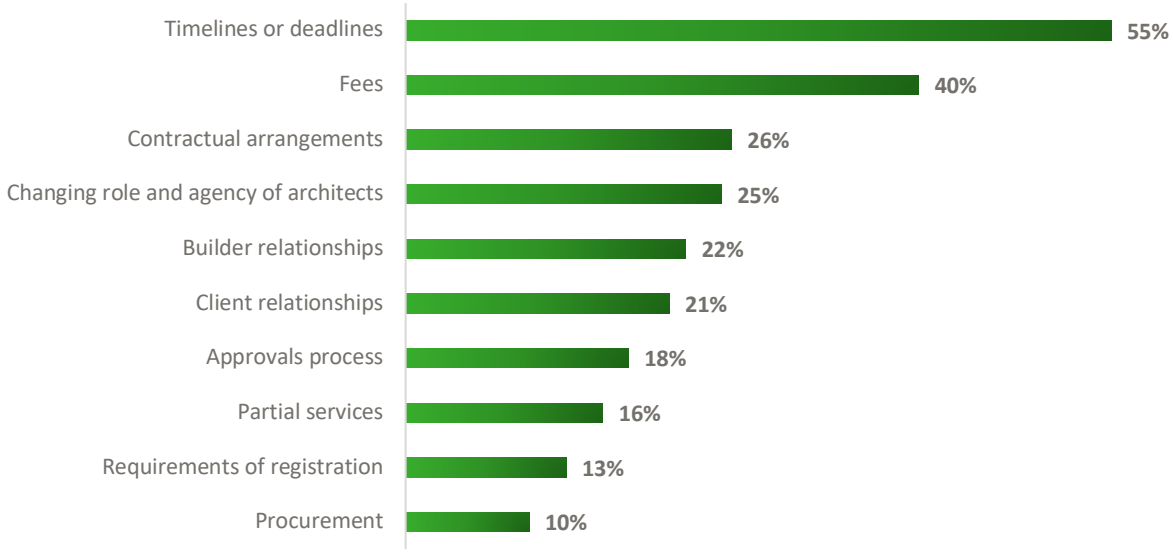


Figure 35: Top three industry factors that have had a negative impact on wellbeing

IMPACT OF EDUCATION & WORK ON WELLBEING

Response snapshot:

Respondents were divided in their answers about the general impact that past study had on their wellbeing.

- Strikingly, 48% of the sample reported that their studies had a generally negative effect on their wellbeing while a smaller 38% said that their studies had a generally positive impact.
- The *area* of study that was remembered as having the most negative impact on wellbeing was ‘design’ (39%), while the most positive was ‘electives’ (70%).
- The *stage* of study with the most negative impact on wellbeing was the 'end of semester period’ (61%) and the ‘final year of education’ (53%), while the most positive was ‘graduation’ (72%).
- The processes of study with the most negative impact were ‘public presentations’ (52%) and 'group work’ (41%), while the most positive were ‘individual work’ (65%) and ‘tutorials’ (62%).

There was a similar split in responses about the impact of career stages and work-factors on wellbeing.

- Exactly half of the respondents reported that their work in architecture had had a generally positive impact on their wellbeing, while 42% reported a generally negative impact.
- The work-related factors with the most negative effect were ‘time available to complete work’ (50%) and ‘requirement to work outside normal hours’ (47%) while the factors least likely to have a negative effect were ‘interpersonal relationships’ (62%) and ‘nature of the work’ (51%).
- The career stages with the most negative effect were ‘periods looking for work’ (73%), ‘undergoing registration’ (41%) or ‘becoming a parent / caring responsibilities’ (40%).
- The top three industry-related factors with a negative impact on wellbeing were ‘timelines or deadlines’ (55%), ‘fees’ (40%), and ‘contractual arrangements’ (26%), while the lowest ranked factors were ‘procurement’ (10%), ‘requirements of registration’ (13%) and ‘partial services’ (16%).

Notable analysis:

- It is significant that, when asked to reflect back on their education in architecture, respondents held such a strong perception of its negative effect. Similarly, the fact that only half of the respondents believed their current work in architecture had a generally positive effect on their wellbeing is noteworthy.
- The most polarised responses in terms of studying architecture, and its wellbeing effects, were around ‘design’ as a subject area, and ‘studio’ as a mode of teaching. These received high positive and negative ratings, with few neutral responses.
- The work-related factors that were seen to have a negative effect on wellbeing were mostly concentrated around time – the time available to do work, the need to work overtime in order to complete it, and the timelines and deadlines imposed externally from the industry.

Part three: multi-item measures

The questions described above in Part One and Part Two were tailored to address the architectural context and were specifically formulated for this survey. In contrast, the questions discussed in Part Three came from the workplace research literature. Each section below represents established measures for particular characteristics which have been developed and validated across other fields and professions.

The advantage of using such multi-item 'scales' is that it enables a comparison between the architecture profession and comparable fields by benchmarking survey responses against other cohorts, including the Australian population as a whole.

Personal wellbeing

This section reports on established measures related to personal wellbeing and psychological distress. Respondents were also asked to compare their quality of life at the time of the survey with how it was just before the COVID-19 pandemic. Overall, the multi-item questions indicated that the personal wellbeing of respondents was significantly lower than the Australian general population. Respondents also reported higher levels of psychological distress compared with the general population.

These findings have been analysed against a range of variables to understand the factors associated with personal wellbeing and psychological distress.

Figure 36 shows that, when asked to compare their overall quality of life currently and immediately before the COVID-19 pandemic, the respondents were split fairly equally between those whose conditions had generally worsened, those for whom there was no change, and those for whom there had been a general improvement. The majority (66%) said that their life was 'somewhat worse' or 'about the same'.

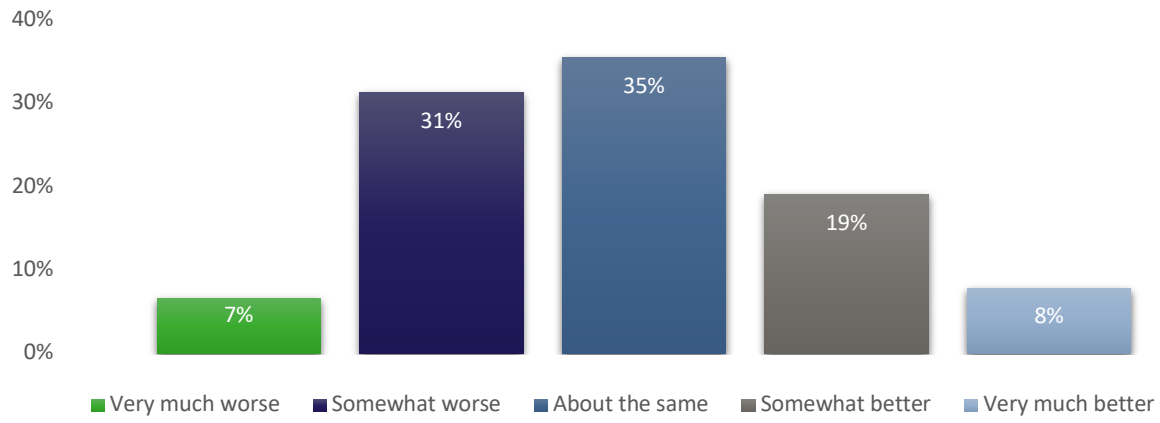


Figure 36: Current quality of life compared with the beginning of COVID-19

Personal wellbeing was measured using the Australian Unity Wellbeing Index which is part of an annual survey that has been conducted to assess the wellbeing of Australians by Deakin University and Australian Unity for the past 20 years (Cummins et al., 2021). The index contains an overall single item measure (*how satisfied are you with your life as a whole?*) and a multi-item scale capturing an assessment of personal wellbeing across seven life domains – 'your standard of living', 'your health', 'what you are currently achieving in life', 'your personal relationships', 'how safe you feel', 'feeling part of your community', 'your future security'. Together these add up to a total score ranging from 0 to 100.

Figure 37 displays the mean scores for the single item measure of overall (global) subjective quality of life for the respondents in the present survey and respondents from a general population survey conducted in early 2020 at the beginning of the COVID-19 pandemic (Khor et al., 2020). It indicates a lower mean score for respondents than the general population. While the two surveys were conducted 18 months apart, the outcomes for the personal wellbeing index from the 2021 general population survey remain consistent with outcomes from the 2020 survey (K. Lycett, personal communication, September 28, 2021). This seems to indicate that the respondents in the architectural practitioners survey rate their 'life as a whole' lower than that of the general population.

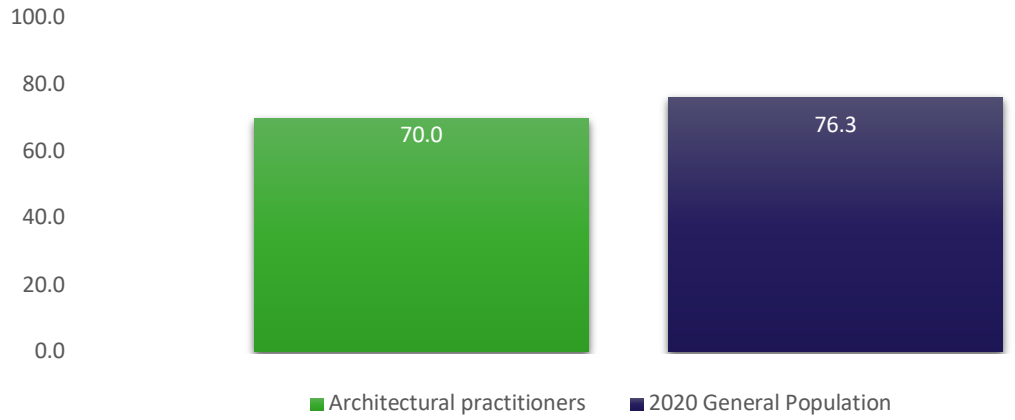


Figure 37: How satisfied are you with your life as a whole?

Turning to the assessment of personal wellbeing across the life domains, Figure 38 shows that the average score across the seven domains was 66.7 (*SD* = 21.0), which is much lower than the Australian average of 76.5, and other typical samples which range between 74 and 77 (Khor et al., 2020). Scores on the individual domains show that the respondents rated the domain 'how safe you feel' the highest, and the domain 'your future security' the lowest. This response is likely to have been affected by the COVID-19 pandemic and further work will be needed to examine this during non-pandemic conditions.

While the pattern of scores across the individual items (i.e. which are generally higher and which are generally lower) is roughly consistent with the Australian averages, this sample deviated the most from the 2020 general population survey for the domains: 'your future security', 'your health', and 'what you are currently achieving in life'.

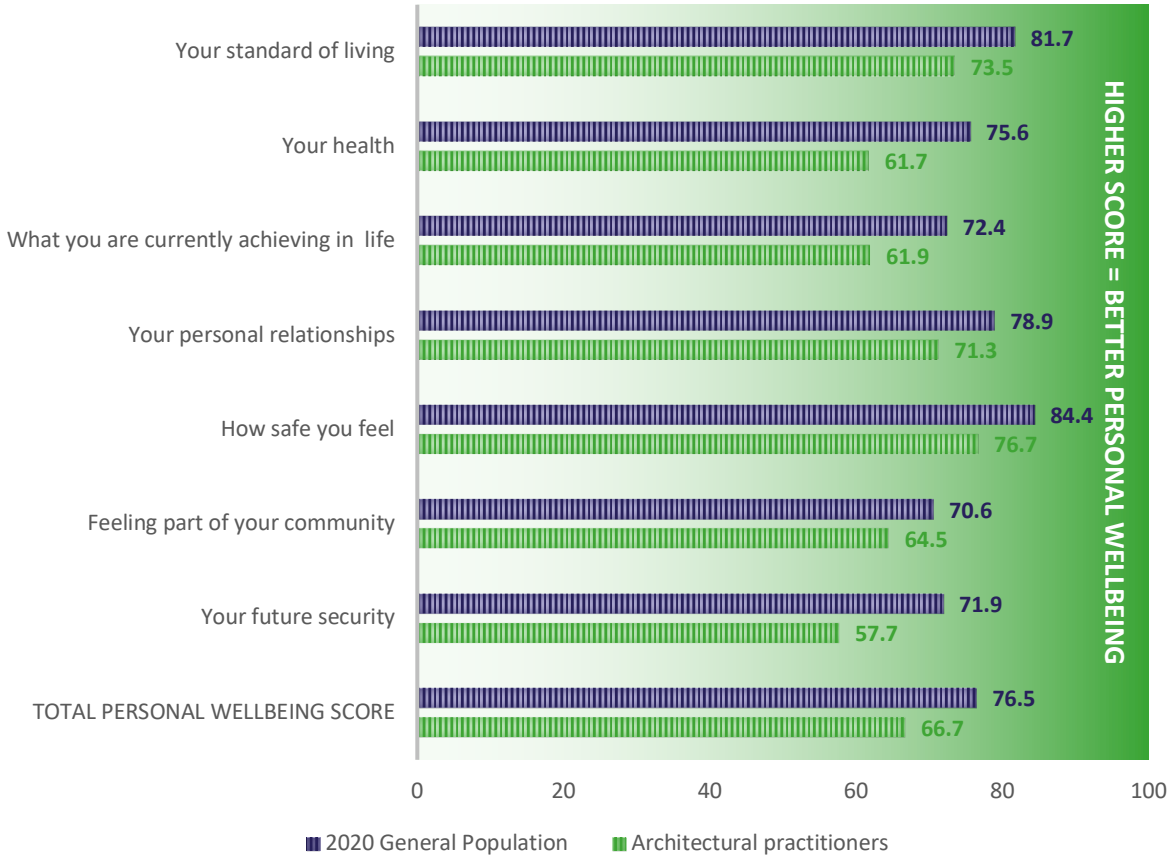


Figure 38: Personal Wellbeing Index

Figure 39 displays the mean total personal wellbeing scores in relation to changes in quality of life since the beginning of COVID-19. As expected, respondents who said that their quality of life was 'very much worse' since the onset of COVID-19, had much lower wellbeing scores compared with those who reported that their quality of life now was 'somewhat worse', 'about the same' or 'better'. Notably, even those who reported no change in their quality of life had a lower mean level of wellbeing (*M* = 68.8, *SD* = 21.1) than the Australian average of 76.5. This suggests that respondents started with a lower wellbeing than average. Follow up analyses to examine potential gender differences showed that gender did not influence the relationship between change in quality of life since the onset of COVID-19 and wellbeing.

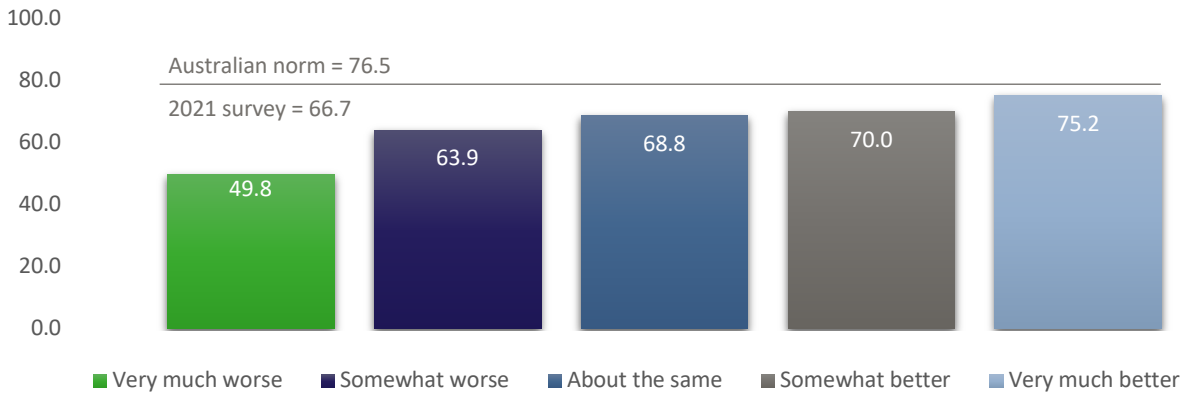


Figure 39: Change in wellbeing since COVID-19 and current wellbeing

Figure 40 displays respondents' level of satisfaction with their current remuneration against their change in wellbeing since the onset of the pandemic, and the personal wellbeing scores for each level of satisfaction. There was a clear increase in wellbeing as satisfaction with remuneration increased. While the personal wellbeing scores for most groups fell well below the Australian norm in 2020 (76.5), those who were 'very satisfied' with their current level of remuneration had scores above the Australian norm. Follow up analyses to examine potential gender differences showed that gender did not influence the relationship between satisfaction with remuneration and wellbeing.

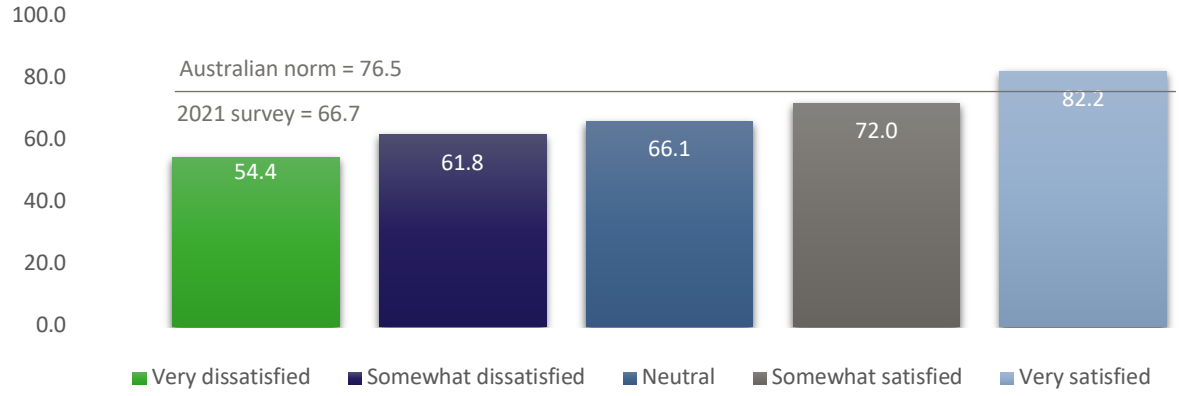


Figure 40: Satisfaction with remuneration and current wellbeing

The total scores on the psychological distress scale range from 0 to 12 and the average score in this sample for psychological distress was 3.8 (*SD* = 3.2) which is indicative of mild psychological distress (range 3–5) (Kroenke et al., 2009). Figure 41 displays the average scores for the two psychological distress subscales capturing anxiety and depression (range 0 to 6). This figure shows that respondents reported higher levels of anxiety compared with depression. While these scores don't meet the threshold for significant anxiety or depression (i.e. score ≥ 3), they are nevertheless higher than typically seen in other studies (see Kroenke et al., 2009).

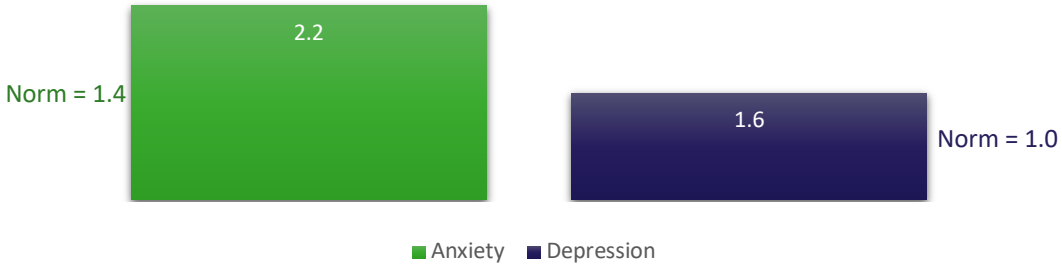


Figure 41: Psychological distress

Figure 42 shows mean scores for individual anxiety and depression items which each have a range from 0 to 3. The item 'feeling nervous, anxious, or on edge' was the highest rated item. This is consistent with the higher scores on the anxiety subscale shown in the figure above. Note that this may have been affected by the COVID-19 pandemic, and further research is required.

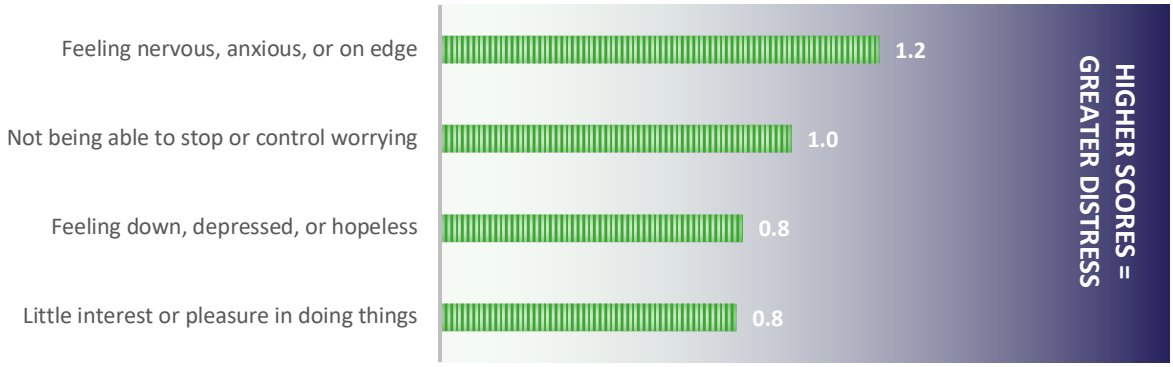


Figure 42: Individual items for psychological distress

Figure 43 displays the average psychological distress scores (ranging from 0 to 12) relating to the level of change in quality of life since the onset of COVID-19. Respondents who said that their quality of life was 'very much worse' or 'somewhat worse' had higher psychological distress scores compared with those who reported that their quality of life was 'about the same' or better. The psychological distress score for these respondents is indicative of moderate distress (see Kroenke et al., 2009).

Respondents who reported the greatest decrease in their quality of life since the onset of COVID-19 (i.e. 'very much worse', 'much worse') also reported substantially higher levels of psychological distress compared with those who rated their quality of life since COVID-19 as 'about the same' or better. Follow up analyses to examine potential gender differences showed that there was no gender influence on the relationship between change in quality of life since the onset of COVID-19 and psychological distress.

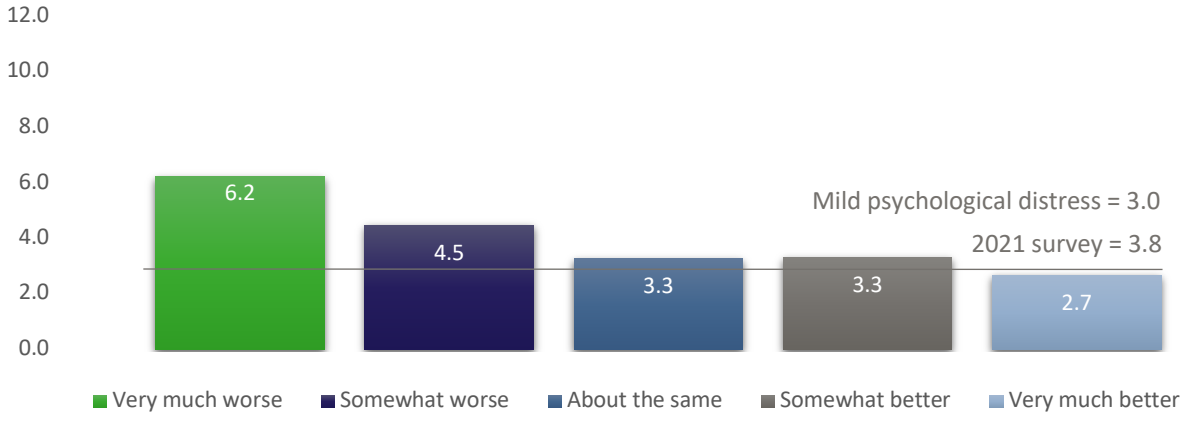


Figure 43: Change in quality of life since COVID-19 and psychological distress

Similarly, Figure 44 displays the mean psychological distress scores for each level of satisfaction with current remuneration. Again there was a clear increase in psychological distress as respondent satisfaction with remuneration decreased. The psychological distress score for respondents who were very dissatisfied with their current level of remuneration is indicative of moderate distress (Kroenke et al., 2009).

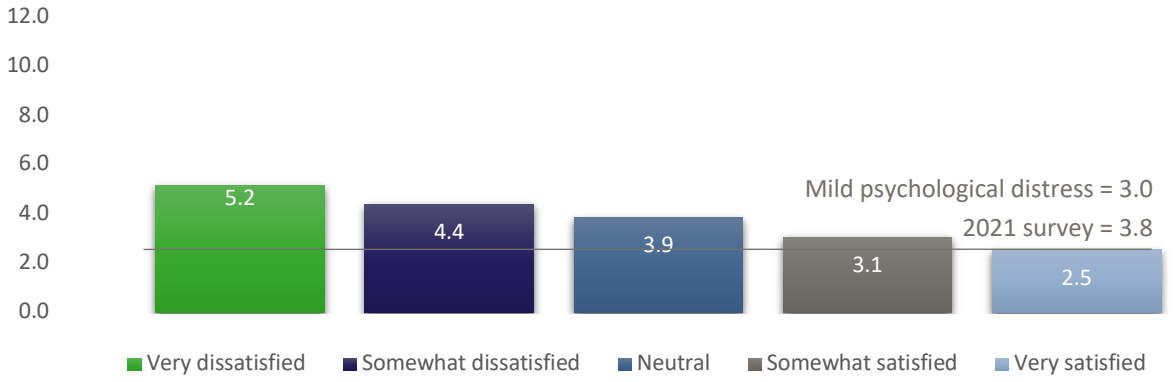


Figure 44: Satisfaction with remuneration and psychological distress

PERSONAL WELLBEING: FINDINGS

Response snapshot:

- Respondents' assessment of their quality of life at the time of the survey compared with their quality of life at the start of COVID-19, were divided among 'worsened' (38%), 'no change' (35%), and 'improvement' (27%).
- The average response to the measures of personal wellbeing (*M* = 66.7, *SD* = 21.0) were lower than the average score for the general population (76.5 in 2020).
- While the pattern of scores across the individual items is roughly consistent with Australian averages, this sample deviated most for the items 'your future security', 'your health', and 'what you are currently achieving in life'.

Notable analysis:

- Those who reported a significant decrease in quality of life since COVID-19 recorded a mean personal wellbeing score of 49.8 (*SD* = 21.7), well below the 2020 national average of 76.5.
- Remuneration was a significant factor in overall quality of life, with those who were satisfied with their current level of remuneration scoring on average closest to the Australian wellbeing norms in 2020 (72.0 – 82.2).
- Respondents reported higher levels of anxiety (M = 2.2, SD = 1.9) compared with depression (M = 1.6, SD = 1.7). While these scores don't meet the threshold for significant anxiety or depression (i.e. score ≥ 3) they are both higher than typically seen in other studies.

Career adaptability

This section addresses career adaptability, which is the capacity to cope with and manage change as well as recover from unforeseen circumstances that can affect career progression (Rottinghaus, et al., 2012). The survey examined career adaptability from the perspectives of career 'agency', 'balance', 'optimism', 'support', and 'satisfaction'. The scores for each measure of career adaptability range from 1 to 5 with higher scores being more positive.

The pattern of scores shown in Figure 45 indicates that respondents in the sample had a strong sense of career agency, that is, their own ability to reflect on, control and manage their careers. This Figure also shows that they tended to feel encouraged and supported by family and friends to meet their career challenges. However their levels of optimism about their career and their capacity to balance their career and family was rated at relatively lower levels. Respondent's career satisfaction was rated at modest levels.

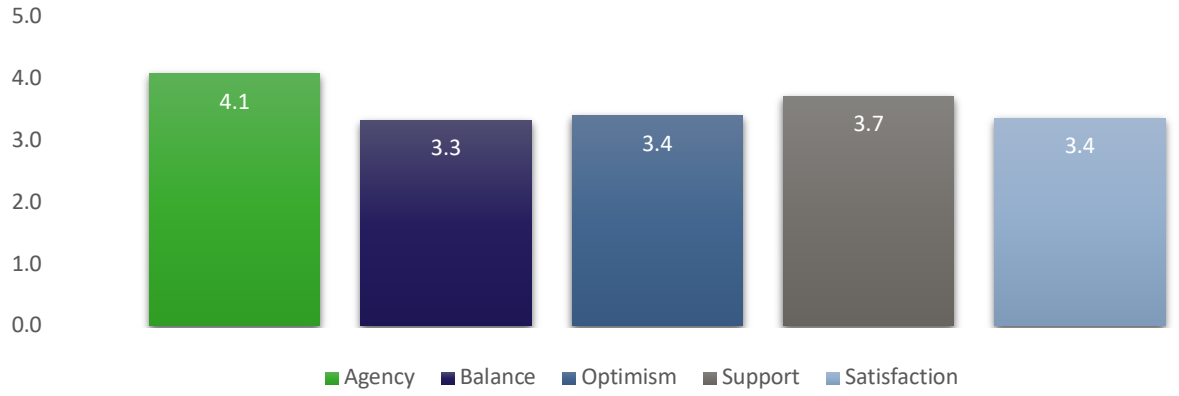


Figure 45: Career adaptability

The three items of the measure for career agency, 'I can adapt to change in the world of work', 'I understand my work-related interests', and 'I am aware of priorities in my life', were all rated on average at the same level (*M* = 4.1). However, Figure 46 shows some variation in ratings across the measures for career 'optimism', 'support' and 'balance'. That is, respondents were less likely to endorse items about being inspired or excited by their careers (optimism) or having the capacity to balance work and family (balance).



Figure 46: Individual items for career optimism, support, and balance

Figure 47 shows that respondents rated their satisfaction with their progress and success at much higher levels compared with their satisfaction with their income goals.

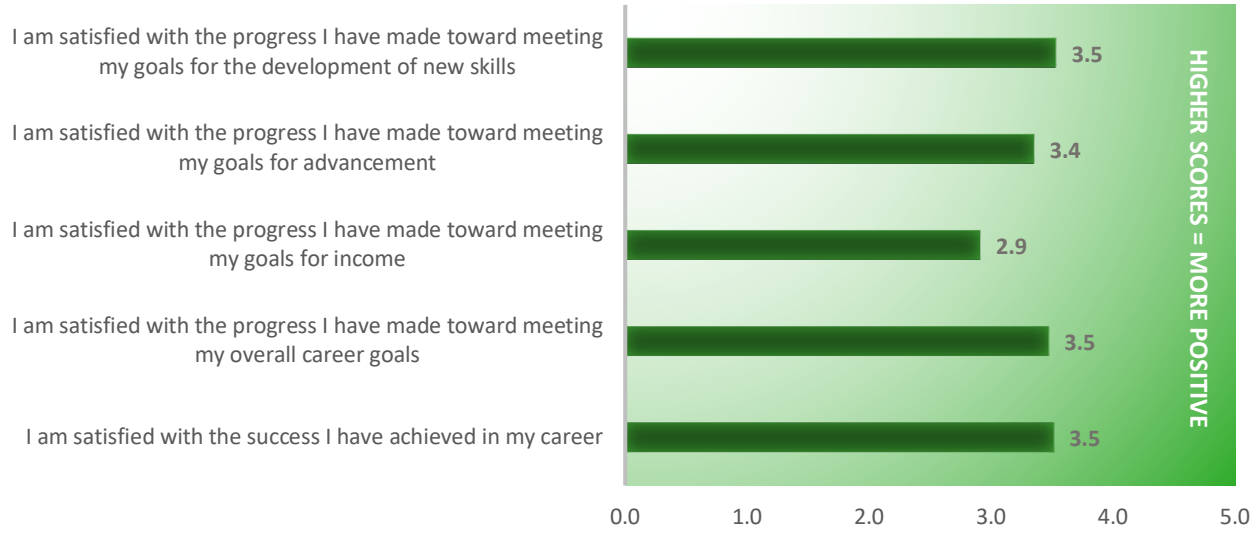


Figure 47: Individual items for career satisfaction

CAREER ADAPTABILITY: FINDINGS

Response snapshot:

The pattern of scores for the measures of career adaptability shows that respondents recorded:

- a strong sense of career agency (i.e. their own ability to reflect on, control and manage their career) (*M* = 4.1, *SD* = 0.6) and a moderate level of career support (*M* = 3.7, *SD* = 1.0)
- lower levels of career optimism (i.e. being inspired or excited by their career) (*M* = 3.4, *SD* = 1.1), career balance (i.e. having the capacity to balance multiple life roles) (*M* = 3.3, *SD* = 1.0) and career satisfaction (i.e. satisfaction with the level of success and progress with their careers) (*M* = 3.4, *SD* = 1.0)
- high levels of career satisfaction, particularly satisfaction with progress (*M* = 3.5, *SD* = 1.2) and success (*M* = 3.5, *SD* = 1.2) rather than with income goals (*M* = 2.9, *SD* = 1.3)

Notable analysis:

There was substantial variation between:

- higher ratings for professional identity and caring about the fate of the profession, and lower ratings for professional commitment
- higher ratings for personal accomplishments in the workplace and taking pride in one's work, and lower ratings for morale and energy in the workplace

Experiences at work

Experience at work was examined using a number of multi-item scales that measured how respondents viewed their profession, their attitudes to their work and workplace practices, and how connected they felt to their professional environment and the people within it.

This included measures of professional identity and professional commitment; psychological needs at work relating to autonomy, competence, and relatedness; perfectionism; workplace climate; and burnout.

Scores for the measures of professional identity and professional commitment range from 1 to 5 with higher scores indicating a clearer sense of professional identity and a stronger commitment to the architectural profession. The average scores for both professional identity (*M* = 3.3, *SD* = 1.0) and professional commitment (*M* = 3.3, *SD* = 0.8) were the same and slightly above the midpoint for these measures indicating a moderately positive sense of professional identity and professional commitment.

Figure 48 shows substantial variation across individual item scores for both measures. The pattern of scores shows higher ratings for items such as 'being connected to architecture is an important part of my self-image' (identity) and 'I really care about the fate of my profession' (commitment) but lower scores for items such as 'my profession is the best of all possible professions in which to work' (commitment) or 'I talk up my profession to friends as a great career' (commitment). This suggests that respondents value their profession but may not see it as viable in the long term.



Figure 48: Individual items for professional identity and commitment

Basic psychological needs at work were measured from three different perspectives – autonomy, competence and relatedness – with scores ranging from 1 to 5. Higher scores on these measures indicate that respondents are able to have control over their actions at work (autonomy), have the skills and ability to carry out their work effectively and reach their desired goals (competence), and feel connected to others (relatedness). Figure 49 shows that respondents have high mean scores on both autonomy and competence and a slightly lower score on relatedness.

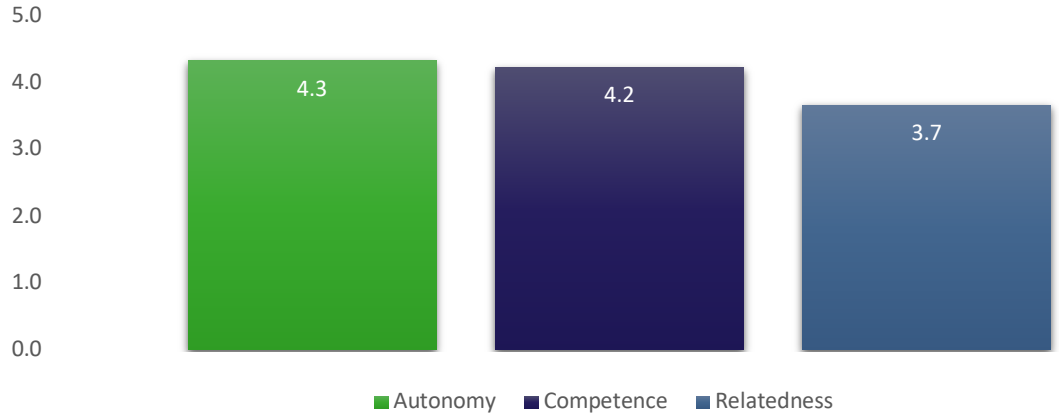


Figure 49: Psychological needs at work – autonomy, competence and relatedness

Figure 50 shows individual item scores for the measures of autonomy, competence, and relatedness. The highest ratings are for those items that focus on capacity for problem solving, responsibility and ability to do their work well. The items that focus on relationships with others in the workplace were rated much lower than items that focus purely on the respondents' capacity to do their jobs



Figure 50: Individual items for psychological needs at work

Perfectionism is measured with two subscales – 'standards' (representing perfectionistic strivings and standards set for the self), and 'discrepancy' (representing self-criticism and the perceived discrepancy between achievements and expectations). The scores for the perfectionism subscales range from 1 to 5 with higher scores being more positive. The mean scores presented in Figure 51 are roughly consistent with scores from those reported in the validation study (Rice et al., 2013), although the discrepancy subscale scores are slightly higher. This pattern of scores with a high level of perfectionistic striving (standards) and relatively lower levels of perfectionistic concerns or self-criticism (discrepancy) reflects what Strober and Otto (2006) refer to as healthy perfectionism.

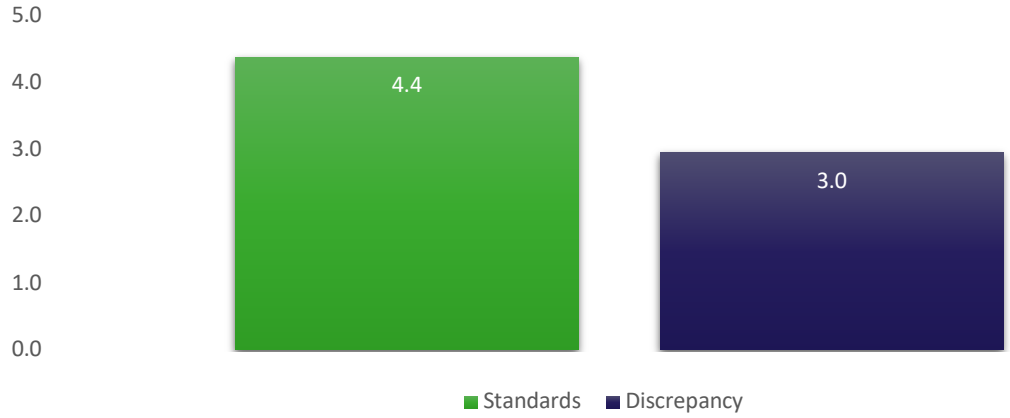


Figure 51: Perfectionism

Figure 52 below shows individual item mean scores for the perfectionism subscale standards. The four items of this subscale focus on performance expectations and are rated at a high level.



Figure 52: Individual items for standards

Figure 53 below shows mean scores for individual items in the perfectionism subscale discrepancy. The four items of this subscale focus on perfectionistic concerns or self-criticism and are rated substantially lower than those of the standards subscale.

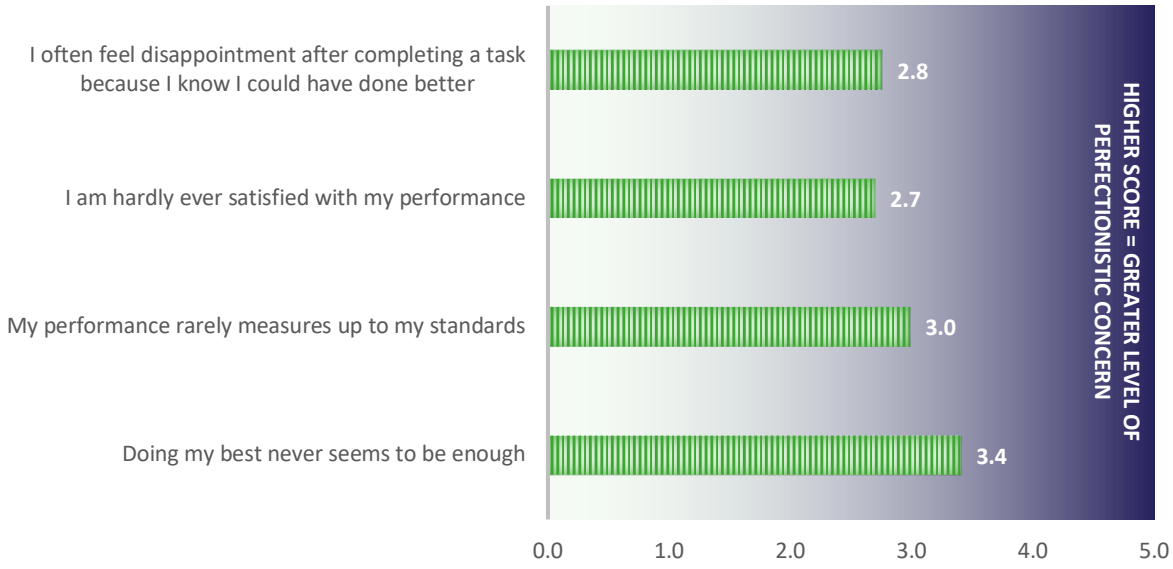


Figure 53: Individual items for discrepancy

Scores for the measures of workplace morale and perceived organisational climate range from 1 to 5 with higher scores indicating a better workplace morale and a higher level of perceived organisational support. The average scores for both workplace morale (*M* = 3.6, *SD* = 0.8) and perceived organisational support (*M* = 3.5, *SD* = 1.0) were roughly the same and both were above the midpoint for these measures, indicating a greater sense of workplace morale and higher levels of perceived organisational support.

Figure 54 below shows some variation across individual item scores for both measures. The pattern of scores shows higher ratings for items such as 'people take pride in their work' or 'there is a good team spirit at my workplace' (morale) and 'my organisation takes pride in my accomplishments' (support) but lower scores for items such as 'the morale at my workplace is high' (morale) or 'there is a lot of energy at my workplace' (morale) and 'my organisation really cares about my wellbeing' (support). This suggests that respondents take pride in their work but may not see it as a viable profession in the long term.



Figure 54: Workplace climate

Respondents reported relatively high levels of burnout (*M* = 3.8, *SD* = 1.0) with scores well above the midpoint for this measure. Figure 55 shows that individual item scores for the measure of burnout were rated at roughly equivalent levels. The item, 'there are days when I feel tired before I arrive at work' received the highest rating, while 'during my work, I often feel emotionally drained', was given the lowest rating.

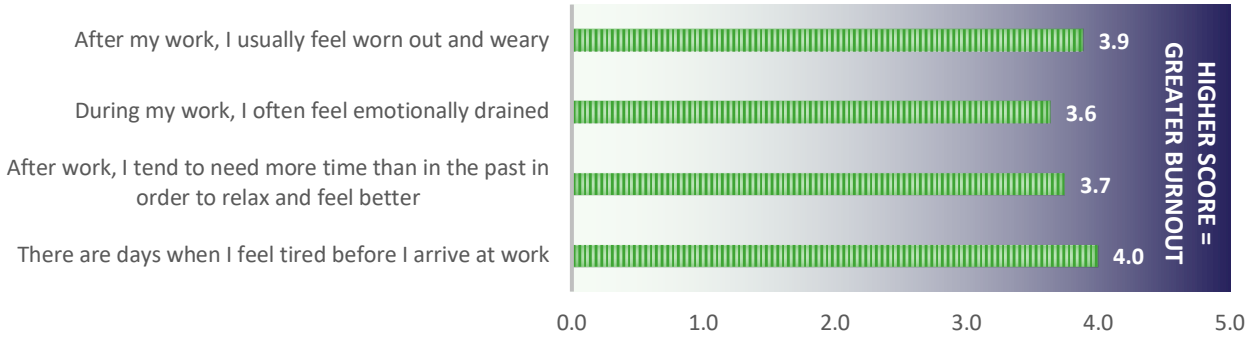


Figure 55: Individual items for burnout

EXPERIENCES AT WORK: FINDINGS

Response snapshot:

The pattern of scores for the measures related to working life shows that respondents recorded:

- average scores for both professional identity and professional commitment, indicating moderately positive levels of professional identity and sense of professional commitment
- average scores for measures of psychological needs at work, indicating high scores on both autonomy (*M* = 4.3, *SD* = 0.7) and competence (*M* = 4.2, *SD* = 0.7) and a slightly lower score on relatedness (*M* = 3.7, *SD* = 1.0)
- average scores for two subscales of perfectionism, indicating a high level of perfectionistic striving (standards, *M* = 4.4, *SD* = 0.7) and relatively lower levels of perfectionistic concerns or self-criticism (discrepancy, *M* = 3.0, *SD* = 1.1); this reflects what has been described as healthy perfectionism (Strober and Otto, 2006)
- average scores for both workplace morale (*M* = 3.6, *SD* = 0.8) and perceived organisational support (*M* = 3.5, *SD* = 1.0), indicating a greater sense of workplace morale and higher levels of perceived organisational support

Notable analysis:

The pattern of scores for the measures related to working life shows that respondents recorded high levels of burnout. Scores were well above the midpoint for this measure.

Work context and career satisfaction

This section reports on correlational analysis of career satisfaction against a range of measures that relate to work context and career outcomes. This analysis showed that nearly all of the measures that were tested had a positive relationship, meaning that as one score increased (such as autonomy), career satisfaction improved along with it. These are explored in more detail below.

Figure 56 shows associations between respondents' scores on the work context variables and their career satisfaction. The table shows both the magnitude and direction of the relationships between the work context variables and the career outcome variables where:

- positive relationships are indicated by figures between zero and 1 and are shown in shades of green (these relationships are called 'positive' because the scores for the variables in the questions will increase together).
- negative relationships are indicated by figures between zero and -1 and are shown in shades of red (these relationships are called 'negative' because as the score on one variable increases, the score on the related variable will decrease)

Statistically significant relationships were observed between the measures of work context, and career optimism and career satisfaction. With the exception of perfectionistic self-criticism (discrepancy), higher scores on all these measures were associated with more positive career outcomes.

Greater career satisfaction was most strongly and positively associated with a stronger sense of career optimism. Those who felt more inspired and excited about their career or eager to pursue their career dreams were more likely to experience greater levels of career satisfaction.

A higher level of career satisfaction was associated with higher levels of basic psychological needs at work such as:

- relatedness to others (relatedness)
- the capacity to make decisions and solve problems (autonomy)
- the feeling of competence and success at work (competence)

Those who felt a stronger sense of relatedness, autonomy or competence were more likely to be satisfied with their career.

A greater sense of career satisfaction was also positively associated with professional commitment. Those who felt a sense of pride, belonging and connection to the architectural profession were more likely to be satisfied with their career.

Interestingly, the association with perfectionism varied according to the two different aspects of perfectionism:

- Those with higher levels of perfectionism (standards) (i.e. who had a greater propensity to set high standards and expected the best from themselves) were more likely to experience higher levels of career satisfaction
- Those with higher levels of perfectionistic self-criticism (discrepancy), (i.e. who tended to say their efforts were not enough or that they were rarely satisfied with their performance) were more likely to experience lower levels of career satisfaction

	Career satisfaction
Career agency	0.32
Career balance	0.29
Career optimism	0.49
Career support	0.38
Autonomy	0.44
Competence	0.40
Relatedness	0.45
Professional commitment	0.40
Professional identity	0.22
Perfectionism standards	0.19
Perfectionism discrepancy	-0.27

Figure 56: Relationships between work contexts and career outcomes

WORK CONTEXT AND CAREER SATISFACTION: FINDINGS

Response snapshot:

As might be expected, nearly all work context measures had a positive relationship with career satisfaction.

- Positive career satisfaction was most strongly and positively associated with a stronger sense of career optimism.
- Those with higher levels of perfectionistic standards were more likely to experience higher levels of career satisfaction, while those with higher levels of perfectionistic self-criticism were more likely to experience lower levels of career satisfaction.

Notable analysis:

- High correlations for career satisfaction were seen in basic psychological needs (relatedness, autonomy, and competence) which are key concepts identified in Self Determination Theory.

Work context and wellbeing

This section reports on correlational analysis of wellbeing measures – including the personal wellbeing (subjective quality of life) index, psychological distress and burnout – against the range of measures that relate to work context and career outcomes.

Figure 57 shows associations between respondent work context, personal wellbeing, psychological distress and burnout. The table shows both the magnitude and direction of the relationships between the variables where:

- positive relationships, shown in shades of green, are indicated by figures between zero and 1 (these relationships are called 'positive' because the scores for the variables in question will increase together).
- negative relationships, shown in shades of red, are indicated by figures between zero and -1 (these relationships are called 'negative' because as the score on one variable increases, the score on the related variable will decrease).

Statistically significant relationships were observed between all of the work and career measures and personal wellbeing. With the exception of perfectionistic self-criticism (discrepancy), higher scores on these measures were associated with a more positive personal wellbeing.

Better personal wellbeing was most strongly associated with increased:

- career satisfaction
- career support
- career optimism
- career balance
- career agency
- perceived organisational support
- satisfaction of basic psychological needs (relatedness, autonomy, competence)
- workplace morale

Better personal wellbeing was also moderately associated with decreased perfectionistic self-criticism (discrepancy).

Increased psychological distress, as measured by the composite scores for anxiety and depression, was most strongly associated with decreased:

- career balance
- satisfaction of basic psychological needs (autonomy, relatedness, competence)
- career satisfaction
- perceived organisational support
- career agency
- workplace morale

Increased psychological distress was also moderately correlated with increased perfectionistic self-criticism (discrepancy).

Increased exhaustion was most strongly associated with decreased:

- career balance
- satisfaction of basic psychological needs (relatedness, competence, autonomy)
- perceived organisational support

Increased exhaustion was also moderately correlated with an increase in perfectionistic self-criticism (discrepancy).

	Personal wellbeing	Anxiety	Depression	Exhaustion
Career agency	0.37	-0.22	-0.24	-0.19
Career balance	0.41	-0.30	-0.29	-0.39
Career optimism	0.41	-0.18	-0.28	-0.25
Career support	0.42	-0.09	-0.16	-0.15
Career satisfaction	0.58	-0.23	-0.30	-0.23
Professional identity	0.16	-0.02	-0.08	-0.10
Professional commitment	0.31	-0.12	-0.21	-0.22
Autonomy	0.38	-0.26	-0.28	-0.26
Competence	0.34	-0.26	-0.26	-0.28
Relatedness	0.42	-0.27	-0.26	-0.31
Perfectionism standards	0.14	0.09	0.01	0.08
Perfectionism discrepancy	-0.29	0.33	0.32	0.34
Workplace morale	0.36	-0.22	-0.24	-0.25
Perceived organisational support	0.38	-0.25	-0.24	-0.27

Figure 57: Relationships between work contexts and wellbeing

WORK CONTEXT AND WELLBEING: FINDINGS

Response snapshot:

As might be expected, nearly all work context measures had a positive relationship with personal wellbeing.

- Personal wellbeing had the strongest positive associations with career satisfaction, career support, career optimism, career balance, and relatedness
- Personal wellbeing was also positively associated with autonomy, organisational support, career agency, and workplace morale.
- As could be expected, increased psychological distress and exhaustion had negative correlations across most measures, notably: career balance, career satisfaction, and basic psychological needs (autonomy, relatedness, competence).

Notable analysis:

- The strongest positive correlation for personal wellbeing was with career satisfaction – this means that those who have high personal wellbeing are also likely to have high career satisfaction, and vice versa.
- The strongest negative correlation in this data showed that poor career balance was associated with exhaustion.
- There was only a weak correlation between professional identity and personal wellbeing.

Part four: responses to qualitative questions

The survey included six reflective, open-ended questions, which yielded lengthy qualitative responses. Not all respondents answered each question, but 1,483 individuals answered at least one open-ended question, and many gave long and detailed responses.

The six qualitative questions were located at key points throughout the survey and were intended to punctuate and culminate different sections. They included two key summary questions at the very end of the survey.

Analysing these qualitative responses required a different process to the more statistical approach in the rest of the survey. Each of the six open-ended questions was manually coded according to theme. The responses to each of the qualitative questions are summarised and discussed below, with a brief selection of indicative responses.

Is there anything else you'd like to add regarding architectural education and wellbeing?

This question was specific to those who said they had undertaken an architectural education. It was located at the end of a series of quantitative questions about processes of teaching and learning, areas of study, stage of study, and so on. The culminating question aimed to build upon, summarise, and synthesise the other responses, and give respondents an opportunity to expand or explain any aspects not covered previously.

Respondents said that their time studying architecture at university was marked by high workload, along with the requirement to spend (what was sometimes perceived to be) excessive time completing work to a satisfactory standard. There was a widespread perception that architectural culture glamorises long hours and late nights, and that architectural work was prioritised at the expense of other facets of life and wellbeing. Many respondents made a link between the culture of work in education and in practice, seeing the pressure to produce a large and unreasonable amount of work, as motivated by competitiveness and job-insecurity.

> *"The long long hours of work started at university and have never ceased" (respondent 84)*

Reflecting back on their education, respondents reported substantial variations in satisfaction with teaching quality and support, particular subject areas, and relationships with teaching staff. The characteristic architectural mode of public 'defence' and critique of student work in the 'crit' was widely discussed. Respondents reported dissatisfaction with educators whose comments were seen as personal attacks rather than constructive feedback, or who were not paying proper attention during presentations. Many respondents thought harsh critics were perpetuating archaic values for the sake of tradition, rather than to benefit the learning and growth of students.

> *"… I was an outgoing, high achieving student and still strongly felt the impacts of overly negative crits and an attitude of educators that we needed to work through the night and tirelessly to be considered worthy. I was told multiple times in crits 'why did I bother showing up with this work' or 'I should be embarrassed' in front of my peers and guest critics" 310*

Respondents perceived that tutors measured passion or ability to 'do architecture' successfully through the metrics of time-spent and volume of work produced. Several respondents questioned whether an architectural education engendered job-preparedness and observed that much of the training and skill development required within practice had not been covered during university education.

Respondents who worked and studied simultaneously indicated that the correlation between time spent and 'successful' outcomes was an added stress, damaging to wellbeing. It was commonly reported that teaching staff discouraged the combination of study and work, however many respondents had no choice but to work whilst studying.

> *"There was a privileged expectation that all students should be studying full time, not working, and living with their parents for support. Anyone who was not in this exclusive bubble of luxury was criticised for their lack of commitment to their studies (despite having high grades, showing up to every class and submitting assignments on time)." 61*

> *"Connection and friendships with fellow students was very positive. Access to opportunities like exchange was very positive. Key stresses were financial – being able to manage student workload and casual work was difficult. The expenses of the course (printing etc) added to this." 821*

Respondents who received more external support (financial, social, or emotional) often attributed improved wellbeing to this. Respondents who said they had formed strong support networks at university reported far greater engagement and reflected far more positively on their time there. However, many respondents who had the privilege of external support still reported being affected by the high expectations of architectural education, and felt pressure to prioritise study over physical, mental, or social health. A significant proportion of respondents saw the equation of time invested and passion as an initiation into a toxic workplace culture in which sacrificing personal time for architecture was the norm.

> *"I loved uni, but it set me up to overwork and over-analyse and give too much of myself" 318*

What personal factors have had an impact on your work-related wellbeing?

This question was designed to draw out other factors influencing respondents' wellbeing. The study's focus on work cultures and work-related wellbeing cannot take full account of the individual person and their whole life circumstances, which has a significant impact on wellbeing – both at work and elsewhere. This includes pre-existing mental health conditions, as well as major life events, stresses, and responsibilities. For example unpaid caring responsibilities (whilst addressed elsewhere in the survey) may have more complex wellbeing effects than could be indicated in a quantitative response.

Most respondents to this question noted that high expectations and tight deadlines at work conflicted with their personal lives outside of work. Respondents with caring responsibilities reported difficulty juggling work and home life, and frustration at the pressure to stay at work beyond contracted hours.

> *"It's hard to have any 'personal factors' in architecture, architecture is supposed to be your life. My personal life and relationships have suffered." 223*

Primary caregivers with dependents frequently reported a lack of support from their workplace and management systems. Many respondents within this category perceived their caring roles as a barrier to career progression and reported that their bosses did not seem to understand that caring and family demands meant that overtime was sometimes not an option. Many respondents reported changing workplaces to seek greater support in order to find a balance of work and home life. Of these, some left architectural practice altogether, whilst others opted for self-employment, further study, or a change in role. Generally, respondents made this choice to attain greater flexibility in working arrangements, and in particular, more control over hours worked.

> *"Maternity leave and working part-time raising children was the most difficult part. I left the profession for a bit." 242*

A number of participants reported changing workplace due to expectations of excessive overtime and lack of support. Many respondents actively structured their personal lives around work. These frequently included choices such as delaying parenthood, neglecting significant life events, neglecting physical and mental health needs, and structuring personal commitments after work to enable overtime.

> *"The fear or ability to choose between starting a family (i.e. taking maternity leave) or pursuing career progression, especially with having no immediate family support" 1317*

The overwhelming majority of responses to this question described a culture that normalises regular, standardised overtime beyond contractual agreements, and the resulting disruption to personal lives.

> *"I get calls despite being on leave. I have been asked how close I was to a grandparent who passed away, implying I shouldn't go to their funeral" 86*

What measures have you taken to support your work-related wellbeing?

This question was designed to find out to what extent respondents were actively seeking to support their wellbeing at work and the types of activities being undertaken, their frequency, and their scope (from individual to office to profession).

The most frequently reported course of action was to take time off. Respondents framed 'time off' in many ways, ranging from reducing overtime or taking leave to leaving a workplace, role, or even the industry. Respondents reported a range of strategies to reduce the amount of time they worked after hours. This included attempting to stop overtime altogether, setting personal boundaries such as 'switching off' from work after a certain time, or negotiating to only do overtime on weekdays so that weekends could be spent on personal commitments. Many respondents reported attempts to verbally negotiate with management about workload, expectations and resources.

> *"Tried to reduce work hours to adapt to family demands at various points (with limited success)" 1992*

> *"Set boundaries between work and personal life. These boundaries were often looked upon as a lack of commitment to my job" 109*

Several respondents tried to reduce their contractual hours to regain more time for personal commitments. Respondents who were financially comfortable with reducing hours or who were self-employed tended to report greater satisfaction with their wellbeing.

> *"Working for myself – allowing me to work flexible hours and care for children" 1540*

> *"Dabbled in yoga, mindfulness etc. Ultimately becoming a freelancer was the best support to my well-being." 29*

A key measure reported was the use of accrued leave to recuperate after stressful periods at work and tight deadlines. This included annual leave, sick leave, and extended leave. Many individuals who took leave due to burnout or psychological distress reported that they did not feel comfortable telling management that they needed to take leave for their mental health because of fear of being stigmatised. Often, respondents reported using personal leave, even when the need for leave was directly related to their sustained workload. Some respondents reported the need for extended leave (greater than three months) because of the effect of their work on their wellbeing. This was borne out in the quantitative findings of the survey.

> *"I have taken time out between the 3 offices I have worked in… I do love it, I just find that it is overwhelming exploitative. I have had the difficult conversations with my employers and raised where changes need to happen. I have also done what I can to support others who haven't been prepared to speak up. I also do everything I can to promote more balanced and healthy attitudes toward the profession when teaching in the university in the hope that a shift in culture within the universities may slowly find its way into practice if the next generations put their foot down and don't heed to the old systems." 7*

Many respondents reported that they had left a workplace to support their work-related wellbeing. Of these, most sought out a workplace that provided more support or flexibility and a culture of shared values. A concerning number of respondents who changed workplaces cited bad management practices as being a key motivating factor.

> *"Change of employment, to a workplace that supports balance" 95*

> *"Taking extended period of time away from the toxic work environment to focus on getting healthier physically and mentally" 1956*

Common themes were poor standards in workplace management and culture, lack of acknowledgement or perceived valuing of work, and low remuneration compared with other industries. Many respondents who had left the profession said that they had been passionate about architecture but were unable to stay in the industry due to the impact on their wellbeing, security, and quality of life.

> *"I went to every health professional you could think of. In the end I had to leave my last job after five years of dedication to re-evaluate my life" 1910*

What do you think are the greatest challenges for the wellbeing of people within the architectural profession today?

This was one of the most important of the open-ended questions, located at the end of the survey. It was intended to identify the key issues in work-related wellbeing, as seen through a whole-of-profession lens. Respondents tended to make lengthy and sometimes impassioned responses to this question.

> *"Architectural firms expect a lot out of their staff who are generally happy to give a lot, however over a long time this is detrimental to their health." 1503*

The most common theme was low remuneration in relation to workload, hours worked, investment in the profession and responsibility. Many practitioners argued that fees did not equate with the scope and services required in architectural practice. Respondents reflected that this was likely caused by competition, undercutting of fees, and an under-valuation of architectural labour. Low fees prompted many respondents to express frustration about unrealistic expectations and deadlines.

> *"Existing and well entrenched valuing of over working (sacrificing wellbeing). And businesses charging low low fees to compete against others to win jobs, meaning values are further demeaned and wellbeing is bottom of the list (working harder and longer for less money) – it devalues the importance of our industry!!" 1192*

Other respondents described this in terms of the level of responsibility and stress being incommensurate with payment and reward

> *"The investment of emotional energy is too high relative to the remuneration and benefits, and risks taken as a professional. I would earn more as a traffic controller, without having to think about my job after hours." 83*

Many respondents cited fee-undercutting as a key cause of low wellbeing, as architectural employees bore the burden of underpayment and overwork. They believed that this phenomenon reinforced expectations of normalised and frequent overtime, often without additional payment or time-in-lieu. Many felt that the cycle of workers sacrificing their own personal time and remuneration for the good of the company, client, or profession was an issue. Many acknowledged a need for cultural change within the profession.

> *"In the profession as a whole it seems to be the norm to work excessive amounts of non-remunerated overtime … If you're not burnt out, you're not committed enough." 1510*

> *"Australian society places low value on good design so fees we can command (even as a well-respected design practice) are never enough to cover the work needed to produce excellent design. So design excellence only happens off the back of architects' unpaid overtime. Meanwhile, there are always other firms ready to undercut us and produce inferior work in less time" 1225*

If you could do one thing to improve work-related wellbeing in architecture, what would it be?

This is an important question because it reveals a perceived hierarchy of issues as well as focusing on action towards improvement. This is particularly useful in relation to the trajectory of the larger research project. On the other hand, the question also has limitations. As one respondent observed:

> *"There's no silver bullet to this. The closest thing to 'one thing' would be attitudinal change both at an individual and a whole-of-profession level."1445*

The 'one thing' identified by many of our respondents is complex and thoroughgoing cultural and systemic change. It is clear there is not a simple or single answer. Nevertheless, the responses offer a kaleidoscope of ideas and possibilities for change.

An overwhelming majority of respondents spoke to three core factors: realistic fees and timelines for architectural services; adequate resourcing; and payment for actual hours so that staff need not sacrifice personal time to achieve good results.

One respondent argued that architects need to be afforded 'more authority and appreciation', so they are:

> *"better able to dictate payment and timeframes for projects. This will mean less workload and financial stress on each person. If I could do one thing, it would be not perpetuating the exact opposite of this by working to meet unrealistic budget and time pressures." 1374*

Responses to this question indicate that the majority of respondents frame issues of wellbeing in systemic rather than individualistic terms. They see the solutions as relating to working conditions and cultures in the profession as a whole, including conditions imposed from outside, rather than the actions or decisions of individuals.

> *"I would go back in time and make sure that our profession is valued for its long-term approach. This would mean fees, remuneration and time expectation is more balanced for the individual. Australia suffers from a myopic approach to building and*

this means projects are not as great as they could be. Value management is driven by short-term project profit gains, but long-term maintenance and material degradation become much more costly." 557

In general, responses to this question fall into four interrelated categories: financial management (fees and pay); time management (timelines, deadlines, and overtime); value and recognition of architectural services; and the need for collective or structural action to address the current situation.

"I dream of a world where hours are fixed and if there must be overtime, it must be paid every time" 68

"Regulate work hours. Regulate contracts (ban sentences like "38 hours a week and/or the time required to complete any tasks assigned..." seen too many times on contracts), audit organizations." 218

"Ban overtime. Record hours accurately. Force business leaders to get management training!" 224

"Remove the expectation for working ridiculous hours and value our profession and the people within it." 30

Respondents wrote of the need for change at all levels of the business of architecture. Some suggested the need for greater regulation of procurement processes and the introduction of standard fee-scales to curb fee-underquoting and promote the value of architecture. Others suggested the need for industry intervention to raise standards on the 'business' side of architecture by providing the training and resources necessary to run a practice for the benefit of both employers and employees.

"Make companies realise that they should treat all staff fairly, that means paying for work done. If we can't do the work within the fees we as a profession are charging, then the fees need to be higher! Your company cannot be considered profitable or successful if it is only so on the back of unpaid junior labour." 158

Many respondents advocated greater regulation: to protect architectural workers' rights and responsibilities in line with their duty of care. Suggestions included intervention from industry bodies to mandate that workers are compensated for the actual time that they work, including by addressing exploitative contractual loopholes. Many respondents suggested a deep need for cultural change within the profession to normalise standard hours and reframe altruistic overtime.

"Give people the understanding that EVERYONE impacts wellbeing. The idea of 'self' sacrifice for team or individuals only starts a chain of negative wellbeing" 1215

Overall, respondents argued that the culture needs to transition to one of support and collaboration, rather than mistrust and competition.

"Remove the expectation to work late nights and weekends. It is often worn as a badge of honour. If we can't mostly get the work done within business hours, there is something wrong with the industry" 1509

Many participants stated that they felt the architecture profession, and more particularly the design services it provides, are undervalued by allied professions in the built environment, and by the community generally. It was suggested that this includes a misunderstanding of the role of the architect, and an under-appreciation of the value of design per se. As one participant phrased it, the one thing they would do to improve work-related wellbeing would be to:

"Educate clients to understand and value the complexity of design and the value of time spent in the research, conceptual and design development stages of a project

[…] Education about design ideally starts in kindergarten, if the whole community values the built environment and our contribution in shaping it we can thrive." 2008

This focus on the need to demonstrate and evidence the value of architectural services, and the conditions required to produce good design, was echoed by other respondents:

"[Create] greater education within and in parallel industries to really highlight how long good quality work takes. Constant unreasonable expectations and deadlines and the push to work towards that [...] are breaking a lot of my colleagues (and myself) down." 1479

There was a strong correlation between what is perceived to be societal undervaluing of architectural design and corresponding financial investment. This was cited particularly in relation to the fees that architects charge, and the fees that others are willing to pay.

"Increase the value placed on architectural work. So many issues stem from low fees and an expectation that complex and time-consuming work can be completed more quickly than it reasonably can. Higher fees would greatly alleviate many of the issues the industry faces." 140

One of the most notable themes was resourcing. Many participants argued that they would adequately *resource* projects so that they could be completed to an appropriate standard that did not lead to work practices with negative wellbeing effects. One participant put it succinctly, saying they would change:

"the expectation that late nights means better work – it does not. This means proper fees for proper resourcing." 37

Participants linked charging of low fees (caused by fee-undercutting and deregulation) with long hours, unrealistic deadlines, overtime (including unpaid overtime), and low pay. The connection between time, money and working conditions – or workflow, fees and wellbeing – was strongly indicated in the responses:

"Increase fees – time pressure would be taken off staff, business financial pressures would reduce, better work can be done as there is more time to do it, less mistakes as projects are not as rushed, less mistakes means less client complaints or risk of being sued, students and graduates can be trained properly, employees can have a better work/life balance as they are not always in the office, you get paid for the work that you do and not keep doing work for free. Architects would be more valued and not seen as the draftie." 277

Other participants noted that these conditions are ultimately self-defeating and highly detrimental to the profession as people faced with relentless work pressure are apt to leave:

"Increase fees to reduce deadlines. I've had a number of friends leave the profession or have breakdowns due to the relentless nature of deadline after deadline." 817

Tragically, some participants noted that the pressures of architectural practice can have serious effects on physical and mental health, including the most catastrophic outcomes of all:

"Three of my university cohort – all friends and owners/leaders at their firms – have committed suicide in the last 8 years. This is a tragedy and a disaster. Designing a high-quality building is the easy bit – dealing with all the challenges required to get it built, minimise risk, get paid and fairly renumerate staff is not. Poorly and narrowly educated architectural staff simply compound and push problems up-the-line to the

owners and leaders of firms where the stress really bites. Three dead friends is testament to this." 1620

Responses like these are distressing. But they do underscore the gravity of the issues under discussion, and their very real effects on some individuals.

Is there anything else you would like to add regarding wellbeing in architecture?

In response to this final question, participants generally elaborated on previous questions within the survey. The most common response was a call to action for increased support and community solidarity within the profession to challenge norms and expectations that have a detrimental impact on work-related wellbeing. This included the need to acknowledge that there is, indeed, a problem.

> *"Until [the architecture profession] acknowledges it has a problem, there is little hope of rehabilitation" 1773*

Many respondents spoke of the need for additional training and resources for those in the profession, as well as a need for increased business acumen and ethics. Overall, respondents advocated for the architectural profession, led by industry bodies, to better convey the value of architecture, and observed that acknowledgement of wellbeing in architecture is long overdue.

> *"How can we expect the public to value architecture if the industry doesn't value itself?" 1241*

> *"The tricky thing about the profession is that what makes it so difficult is also what makes it so fulfilling. It's challenging, many architects are passionate, it becomes part of your identity. Which also means you can't leave your work at the office, you carry it with you. Also, many architects are perfectionists (somewhat due to the responsibility they hold/onus often being put on 'The Architects' – rightly or wrongly) which means the work is never done." 92*

It should be noted that there were also some serious disclosures of alleged illegal activity in this and other open-ended questions. There was a small but significant number of accounts of sexual harassment and assault, and gender-based discrimination (including insensitivity and lack of support during gender transitions); as well as stories of homophobia, racism and class-based discrimination.

There were accounts of alleged illegal, corrupt, or exploitative work practices (including abuse of power and the exploitation of foreign workers on sponsored visas), and stories of bullying. These are all serious and worrying accounts.

One respondent wrote a long and impassioned response, as follows:

> *"Watching, supporting, counselling and putting back together friends and colleagues who were damaged by the industry's callousness has been hugely dispiriting, existential crisis inducing, and filled with a simmering rage that everyone in the industry is 'getting away' with the exploitation and harm they're causing. (This is why I was so excited to see this survey being run with management professionals, as I think Stockholm syndrome is alive and well in our industry)*
>
> *9 friends & colleagues were hospitalised for stress induced issues. Stroke, Aneurysm, Liver Failure, Kidney Stones, Gut issues, Panic Attacks, Anxiety Disorders, Depression, Burnout. Whilst it could be argued that architecture is not the sole cause, each of these people were consistently working extremely long hours, in high pressure environments, without feeling like they could pause without jeopardising their projects, credibility, career progression, business relationships, etc.*

Whilst managers feigned support, no proactive rather than reactive support was offered, no meaningful push back against clients, developers or builders was possible due to the small nature of the industry (where bosses weren't confident in potentially upsetting their client to protect their employees and potentially losing repeat work).

So this environment of inevitable, and unceasing high pressure was the immovable status quo, unless you left the industry, company, or altered your career trajectory entirely.

The lack of agency of architects and architecture firms in making their own decisions regarding hours they work, jobs they take on, wages they can feasibly pay, the quality of the buildings they produce, sustainability of buildings they produce etc. All of the agency resides in the hands of clients, government, developers, design/project managers, and the contracts/laws they dictate (or don't dictate in relation to the government) ...

I believe it is an existential threat. I believe it cannot be solved without government intervention in regards to:

– minimum building standards that actually meet an aspirational goal rather than a lowest common denominator, as the market does not incentivise builders and developers to reach for the highest standards, as they have control of the market in the first place. They also have a great deal of influence on the government as well.

– pay rates vs hours worked. A functioning union (PAA) could support the industry's workers, but only if the industry could manage to get itself out of the subsistence economy relationship it has in chasing jobs at lower and lower rates in desperation. If the architecture industry could band together to stand up, at a governmental/strike level, to the other players in the industry who exploit them, then there is a hope of substantial change. Without everyone involved, other companies will cannibalise each other to the benefit of non- architects. Fix this, Fix the hours worked back to ~40hrs/week, and all of a sudden the pay rates won't seem so bad.

Everything stems from this unbalanced system, and the wellbeing of human beings at the bottom of the chain is what suffers the most." 420

Others felt that the architecture profession could have a powerful positive impact within the construction sector:

"*I think there is a great potential for Architects to be drivers for wellbeing within the construction industry, but first we need to change the culture within practices." 228*

While others saw that there is cause for optimism – that change is gradually happening.

"*Because it is such a challenging field, when there are demands elsewhere in your life it really shows. […] I have teenage children and one of the most heartening changes has been that they discuss mental health openly, and without stigma. This is progress. Slow, but progress." 31*

Responses like those quoted above demonstrate that there is much work to be done to improve architectural workplaces, to support the wellbeing of all.

5 Acknowledgements

Acknowledgements – research team

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7 Appendices

Appendix 1 Theoretical Framework & Methodological Design

Architectural Work Cultures: Professional identity, education and wellbeing
Survey one: architecture practitioners

Context

The survey forms part of a larger project which will investigate the wellbeing of people working in and studying architecture, and develop tailored resources to contribute to greater wellbeing for these groups. The larger project encompasses a range of primary research activities, including:

1. In-depth pilot interviews with key stakeholders
2. Baseline surveys (one for practitioners, one for students)
3. Focus groups across all constituent groups
4. Supplementary interviews across all constituent groups
5. Industry forums and discussions
6. Follow up surveys (one for practitioners, one for students)

In the overall project, there are three main constituent groups:

1. Practitioners: people working in architectural practice, broadly defined
2. Academics: people teaching in architecture at a tertiary institution
3. Students: people enrolled in, or just graduated from, architectural study at tertiary level

The current survey is the first of the baseline surveys within the project. It addresses only the first of the above constituent groups – the other groups will be addressed in separate and subsequent research activities.

It should be noted that there will be a degree of overlap between the constituent groups – a characteristic of architectural culture. For instance it may include people who are both studying and working in architecture, or people who are both working and teaching in architecture. Participants with dual identities have been invited to complete the survey most relevant to their circumstances, and were requested not to complete more than one survey.

Aims

This survey has five aims:

1) to better understand the work-related wellbeing of people working in architectural practice (broadly defined)
2) to better understand how self-reported work-related wellbeing in architecture may be related to other occupation-related factors including career stage, working conditions, sense of professional identity, etc.
3) to build upon the preliminary findings of an earlier series of 12 pilot interviews with key stakeholders
4) to develop questions and areas of focus to be explored in more depth in later focus groups and interviews
5) to contribute to the development of tailored resources to support workplaces as well as professional and educational organisations in architecture, as they work towards improved occupational wellbeing through cultural change

Theoretical framework

The theoretical framework of the project as a whole draws upon Self Determination Theory (SDT), as developed by Edmund Deci and Richard Ryan (Ryan & Deci, 2017), which frames three basic psychological needs for self-determination: competence, connection, and autonomy. SDT is increasingly used as a theoretical framework to understand wellbeing at work (Van den Broeck et al., 2016).

Sample and procedure

The survey was conducted online in July and August 2021. It took around 15 minutes on average to complete. The target was to achieve a minimum sample of 1,000 respondents who reported that they were working in architectural practice or allied fields. 2,066 people responded to the survey. Respondents were recruited through professional networks and communications addressed to the Australian architectural profession. The project was approved by Monash University's Human Research Ethics Committee, and all respondents were assured of confidentiality and anonymity.

The survey aimed to encompass everyone who identified as working in and around the architecture profession, including:

- registered architects
- individuals with an architectural education who are not registered but are working in architectural practice
- non-architecturally educated people working in support roles in architectural practice
- students who are also working in architectural practice
- architectural practitioners who are also working as academic staff
- people with an architectural education working in aligned professions and fields

The reasons for casting such a 'wide net' were twofold. First, to define and value architectural practice and the definition of an architect in a broad and inclusive way. Second, to value and capture the contributions of the wide diaspora of individuals trained in architecture who step 'sideways' or away from the profession, but nevertheless have valuable insights for a study of this kind.

The survey was administered online, and prospective respondents were sent an invitation email that contained a link to the survey. Respondents were given two reminders at two and four weeks following the initial invitation, in line with best practice in survey implementation.

A separate survey addressing students enrolled in architecture at a tertiary level will be released at a later time.

A follow-up survey is planned in the third year of the project. Where possible, respondents who completed the baseline surveys will be followed up for updated responses, adding a longitudinal component to the study.

Participants in the survey were also invited to participate in the focus groups.

Background and demographic measures

The survey included questions on:

- respondent demographics (e.g. gender, age, usual place of residence)
- work demographics, tenure, and income
- education background
- caring responsibilities (e.g. care of dependent children, elder care)
- career breaks (e.g. time out of the workforce for parental leave, education etc.)
- impact of the coronavirus pandemic

Discipline-specific questions derived from pilot interview findings

The survey includes a number of architecture-specific questions, derived from the pilot interviews. In these questions participants were invited to reflect and report on their whole-practice experience thus far, in both educational and professional contexts.

Multi-item measures

Respondents were also asked to respond to a series of multi-item measures focusing on professional identity, career adaptation, and wellbeing. These other measures included in the survey are:

- career (agency, optimism, support, balance, and satisfaction)
- professional commitment and identity (commitment, identity, centrality)
- work/job factors (basic needs satisfaction at work, workplace morale, burnout, perceived organisational support)
- wellbeing-related outcomes (subjective quality of life, psychological distress)

Detailed description of the multi-item measures used in the survey

Basic psychological needs at work scale

The measure of psychological needs at work used in this study was a modified version of the measure developed by Brien and colleagues (Brien et al., 2012) and contains three subscales, autonomy, competence and relatedness to measure the satisfaction of psychological needs at work. This three-factor scale contains nine items that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree). Each of the subscales are averaged to a single score ranging from one to five with higher scores indicating a greater satisfaction with respect to the need for autonomy, competence and relatedness. Sample items include 'My work allows me to make decisions' (autonomy), 'I have the ability to do my work well' (competence) and 'When I'm with the people from my work environment, I feel understood' (relatedness).

Burnout

The Oldenburg Burnout Inventory developed by Demerouti, Bakker, Vardakou, Kantas (2003) was used to measure burnout as indexed by the core dimension of exhaustion (a state of draining energy that results from cognitive, emotional and physical strain). The four items from this subscale are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores indicating a greater level of burnout. A sample item is 'There are days when I feel tired before I arrive at work'.

Career agency/self-efficacy

This measure of career agency is a modified version of the career agency subscale of the Career Futures Inventory (Rottinghaus, Buelow, Matyja, & Schneider, 2012). It contains items that address the individual's ability to reflect on, control and manage their career. The three items used in this study are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores indicating a stronger sense of career agency. A sample item is 'I can adapt to change in the world of work'.

Career optimism, support & balance

Measures of career optimism, support and (work/study) balance were adapted from the Career Futures Inventory (Rottinghaus, Buelow, Matyja, & Schneider, 2012). Each subscale contains three items that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree). Sample items are 'I get excited when I think about my career' (optimism), 'My family is there to help me through career challenges' (support) and 'I am good at balancing multiple life roles such as worker, student, family member, or friend' (balance).

Career satisfaction

The measure of career satisfaction was taken from Spurk, Abele, & Volmer (2011) to measure respondent satisfaction with the level of success and progress with their careers. This measure contains five items that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores indicating greater levels of career satisfaction. A sample item is 'I am satisfied with the progress I have made toward meeting my overall career goals'.

Psychological distress (PHQ– 4)

This measure is a brief screening scale that measures the frequency of respondents' experience of psychological distress (Kroenke, Spitzer, Williams, & Löwe, 2009). This two-factor measure contains four items that are rated on a four-point Likert scale (0 not at all to 3 nearly every day) and summed to a single score ranging from one to 12 with higher scores indicating greater levels of depression or anxiety. Sample items include 'Over the last 2 weeks, how often have you been bothered by the following problems?' ... 'Feeling nervous, anxious, or on edge' (anxiety) and 'Little interest or pleasure in doing things' (depression).

Morale (psychological climate)

The measure of perceived workplace morale was taken from the scale developed by Hart et al. (2000). This measure contains five items that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores indicating higher levels of perceived workplace morale. A sample item is 'There is a good team spirit at my workplace'.

Perceived organisational support

This short form version of the perceived organisational support scale measures respondents' perceptions of the level of support they receive from their organisations (Eisenberger, Huntington, Hutchison, & Sowa, 1986). This measure contains three items, four of which are reverse scored, that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores indicating that respondents feel supported and valued at work. A sample item is 'The organisation values my contribution to its well-being'.

Perfectionism

This measure of perfectionism is a short form version of the Almost Perfect Scale – Revised (Rice, Richardson, & Tueller, 2014). This scale measures respondents' sense of value or self-worth regarding their identity as an architect or allied professional. This measure contains eight items that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores indicating greater performance expectations (standards) and higher levels of perfectionistic self-criticism (discrepancy). Sample items include 'I have high expectations for myself' (standards) and 'Doing my best never seems to be enough' (discrepancy).

Professional commitment

The measure of professional commitment used in this study was a measure of professional commitment developed by Hoff (2000) to measure the extent that architects or allied professionals are attached to and identify with their professions. This measure contains six items that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores indicating a higher level of professional commitment. A sample item is 'I talk up my profession to friends as a great career'.

Professional identity centrality (prominence)

The survey uses a modified version of the identity centrality scale developed by Brenner, Serpe, and Stryker (2014) to measure respondents' sense of value or self-worth regarding their professional identity. This measure contains three items that are rated on a five-point Likert scale (1 strongly disagree to 5 strongly agree) and averaged to a single score ranging from one to five with higher scores

indicating greater identity centrality. A sample item is ‘Being connected to architecture is an important part of my self-image’.

Quality of life/personal well-being

Subjective quality of life was measured using the Australian Unity Wellbeing Index (Mead & Cummins, 2008). This measure contains an overall single item measure (‘how satisfied are you with your life as a whole?’) and a multi-item scale capturing an assessment of personal wellbeing across seven different life domains that sum to a total score ranging from 0 to 100, with higher scores indicating a better quality of life. These seven items ask how satisfied respondents are with their ‘standard of living’, ‘health’, ‘current achievements in life’, ‘personal relationships’, ‘safety’, ‘community connection’, and ‘future security’. This measure has been extensively validated and normed.

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Appendix 2 Measures used in the study

Table 1: Items to measure characteristics of respondents and their work

Measure	Sample item
Personal characteristics	
Gender	Male, female, nonbinary or transgender, prefer not to say
Age group	What is your age? (e.g. 26 to 35 years, 36 to 45 years)
Residence	Which state/territory do you usually live in? (e.g. New South Wales)
Country of birth	Were you born in Australia? (Australia, elsewhere – please specify)
Education	Have you studied architecture at a tertiary level? (yes, no)
Caring responsibilities	Do you currently have any regular unpaid caring responsibilities? (yes, no)
Type of caring responsibilities	shared care of dependent children, sole care of dependent children, elder care, care for a person with an illness or disability, occasional care for others, other
Work characteristics	
Current work	Are you currently working? (yes, no)
Employment status	full-time, part-time, contractor
Hours paid to work	How many hours are you paid to work (on average) each week at your main job? (less than 15 hours, 16–25, 26–35, 36–45, 46–55, > 55 hours)
Hours worked	How many hours do you actually work (on average) each week at your main job? (less than 15 hours, 16–25, 26–35, 36–45, 46–55, > 55 hours)
Frequency of requests to work more than contracted hours	How frequently are you expected to work more than your contracted hours? (never, every now and again, monthly, weekly, daily)
Job tenure	less than 5 years, 6 to 10 years, 11 to 20 years, 21 to 30 years, more than 30 years
Type of organisation	private practice – architecture, private practice – multi-disciplinary, private practice – other built environment discipline, government, media, non-profit – volunteer – representative organisation, university
Type of occupation	director – partner – principal, associate director – senior associate, associate, project leader, senior team member, team member, graduate position, administration – finance, communications – graphics, practice management – business support
Practice discipline	architecture, construction, development, engineering, heritage and conservation, interiors, landscape architecture, planning, project management, urban design
Registration status	Are you currently registered as an architect? (registered in Australia, registered elsewhere, registration in process, not registered)
Career break	Have you ever taken a break from your usual career? (yes, no)
Type of career break	parental leave, caring responsibilities, travel, further education, mental wellbeing, pursuing other work, other
Satisfaction with remuneration	How satisfied are you with the level of your current remuneration? (1 very dissatisfied to 5 very satisfied).

Table 2: Items to measure impact on wellbeing in educational and work contexts

Measure	Sample item
Impact of Study on wellbeing	
Impact of studies overall	Thinking about when you were studying architecture, what impact did you feel your studies had on your wellbeing, on the whole? (1 very positive impact to 5 very negative impact).
Impact of stages	Thinking about your studies in architecture, what impact did the following stages have on your wellbeing? (e.g. before commencing studies, first year of education, final year of education) (1 very positive impact to 5 very negative impact).
Impact of subject areas	Thinking about your studies in architecture, what impact did the following subject areas have on your wellbeing? (e.g. design, technology & sustainability, history & theory) (1 very positive impact to 5 very negative impact).
Effect of processes of teaching and learning	Thinking about your studies in architecture, what effect did the following processes of teaching and learning have on your wellbeing? (e.g. studio, lectures, tutorials, public presentations) (1 very positive impact to 5 very negative impact).
Impact of Career in Architecture on wellbeing	
Impact of career overall	Thinking about your career in architecture, what impact has your work had on your wellbeing, on the whole? (1 very positive impact to 5 very negative impact).
Effect of periods of work	Considering different times in your career, what effect did the following periods have on your wellbeing? (e.g. period immediately after graduation from architectural education, working in a first architectural job, undergoing the process of registration) (1 strong positive effect to 5 strong negative effect)
Negative effect of work-related factors on wellbeing	Considering your whole period working in architecture, which of the following work-related factors had a negative effect on your wellbeing? (e.g. amount of work, time available to complete work, requirement to work outside normal hours) (strong negative effect to no negative effect or not applicable).
Negative effect of broader construction industry on wellbeing	Considering your whole period working in architecture, which (if any) of the following aspects of the broader construction industry had a negative effect on wellbeing within architecture? (e.g. contractual arrangements, partial services, client relationships).
Personal factors	Considering the whole period you have worked in architecture, what if any personal factors have had an impact on your work-related wellbeing?
Measures to support work-related wellbeing	Considering the whole period you have worked in architecture, what measures have you taken to support your work-related wellbeing?

Appendix 3 Summary statistics for measures used in the study

Table 3: Percentiles for measures used in the study

Measure	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Wellbeing					
Personal wellbeing index	35.7	53.6	67.9	82.1	92.9
Psychological distress (total)	0.0	1.0	3.0	6.0	9.0
Anxiety	0.0	1.0	2.0	3.0	5.0
Depression	0.0	0.0	1.0	2.0	4.0
Career adaptability					
Career agency	3.3	3.7	4.0	4.3	5.0
Career balance	2.0	2.7	3.3	4.0	4.7
Career optimism	2.0	2.7	3.7	4.0	5.0
Career support	2.3	3.0	4.0	4.3	5.0
Career satisfaction	2.0	2.8	3.4	4.0	4.6
Experiences at work					
Professional identity	2.0	2.7	3.3	4.0	4.7
Professional commitment	2.2	2.8	3.3	3.8	4.5
Autonomy	3.3	4.0	4.3	5.0	5.0
Competence	3.3	4.0	4.3	5.0	5.0
Relatedness	2.3	3.0	4.0	4.3	5.0
Perfectionism – standards	3.5	4.0	4.5	5.0	5.0
Perfectionism – discrepancy	1.5	2.0	3.0	3.8	4.5
Morale	2.4	3.0	3.6	4.0	4.6
Perceived organisational support	2.0	3.0	3.7	4.0	5.0
Burnout	2.5	3.3	4.0	4.5	5.0

Table 4: Summary statistics for the wellbeing measures and their items

	Mean	Std Deviation
Personal wellbeing index		
Average wellbeing score for survey sample	66.7	21.0
Your standard of living	73.5	26.8
Your health	61.7	30.1
What you are currently achieving in life	61.9	29.3
Your personal relationships	71.3	29.3
How safe you feel	76.7	26.3
Feeling part of your community	64.5	28.6
Your future security	57.7	30.6
Your life as a whole	70.0	27.4
Psychological distress: anxiety		
Average anxiety score for survey sample	2.2	1.9
Not being able to stop or control worrying	1.2	1.0
Feeling nervous, anxious, or on edge	1.0	1.0
Psychological distress: depression		
Average depression score for survey sample	1.6	1.0
Little interest or pleasure in doing things	0.8	0.9
Feeling down, depressed, or hopeless	0.8	0.9
Psychological distress: total score		
Average psychological distress score for survey sample	3.8	3.2

Table 5: Summary statistics for the career adaptability measures and their items

	Mean	Std Deviation
Career agency		
Average career agency score for survey sample	4.1	0.6
I can adapt to change in the world of work	4.1	0.8
I understand my work-related interests	4.1	0.7
I am aware of priorities in my life	4.1	0.8
Career balance		
Average career balance score for survey sample	3.3	1.0
I am good at balancing multiple life roles such as worker, family member, or friend	3.5	1.1
I am very strategic when it comes to balancing my work and personal life	3.3	1.2
Balancing work and family responsibilities is manageable	3.2	1.2
Career optimism		
Average career optimism score for survey sample	3.4	1.1
I get excited when I think about my career	3.3	1.2
Thinking about my career inspires me	3.3	1.2
I am eager to pursue my career dreams	3.6	1.2
Career support		
Average career support score for survey sample	3.7	1.0
My family is there to help me through career challenges	3.8	1.2
I receive all the encouragement I need from others to meet my career goals	3.4	1.2
Others in my life are very supportive of my career	3.9	1.0
Career satisfaction		
Average career satisfaction score for survey sample	3.4	1.0
I am satisfied with the …		
… success I have achieved in my career	3.5	1.2
… progress I have made toward meeting my overall career goals	3.5	1.2
… progress I have made toward meeting my goals for income	2.9	1.3
… progress I have made toward meeting my goals for advancement	3.4	1.2
… progress I have made toward meeting my goals for the development of new skills	3.5	1.1

Table 6: Summary statistics for the experience of work measures and their items

	Mean	Std Deviation
Professional identity		
Average professional identity score for survey sample	3.3	1.0
Being connected to architecture is an important part of my self-image	3.7	1.1
I have a strong sense of belonging to the architecture community	3.0	1.2
Being connected to architecture is an important reflection of who I am	3.4	1.2
Professional commitment		
Average professional identity score for survey sample	3.3	0.8
I talk up my profession to friends as a great career	2.7	1.2
I feel very loyal to my profession	3.4	1.2
I am willing to put in a great deal of effort beyond that normally expected in order to help my profession be successful	3.6	1.1
My profession is the best of all possible professions in which to work	2.3	1.2
I am proud to tell others I am part of my profession	3.9	1.1
I really care about the fate of my profession	4.1	1.1
Psychological needs: autonomy		
Average career autonomy score for survey sample	4.3	0.7
My work allows me to make decisions	4.1	1.0
I can use my judgement when solving work-related problems	4.4	0.8
I can take on responsibilities at my job	4.5	0.7
Psychological needs: competence		
Average career competence score for survey sample	4.2	0.7
I have the ability to do my work well	4.4	0.8
I feel competent at work	4.2	0.9
I succeed in my work	4.2	0.8
Psychological needs: relatedness		
Average career relatedness score for survey sample	3.7	1.0
When I'm with the people from my work environment …		
… I feel understood	3.7	1.0
… I feel heard	3.6	1.1
… I feel as though I can trust them	3.7	1.1
Perfectionism		
Average discrepancy subscale score for survey sample	4.4	0.7
I have high expectations for myself	4.5	0.7
I set very high standards for myself	4.4	0.8
I expect the best from myself	4.4	0.8
I have a strong need to strive for excellence	4.3	0.8
Average discrepancy subscale score for survey sample	3.0	1.1
Doing my best never seems to be enough	3.4	1.2
My performance rarely measures up to my standards	3.0	1.2
I am hardly ever satisfied with my performance	2.7	1.3
I often feel disappointment after completing a task because I know I could have done better	2.8	1.3

Table 6 (cont): Summary statistics for the experience of work measures and their items

	Mean	Std Deviation
Workplace morale		
Average workplace morale score for survey sample	3.6	0.8
There is a good team spirit at my workplace	3.7	1.1
The morale at my workplace is high	3.3	1.1
People go about their work with enthusiasm	3.5	1.0
People take pride in their work	3.9	0.8
There is a lot of energy at my workplace	3.4	1.0
Perceived organisational support		
Average perceived organisational support score for survey sample	3.5	1.0
My organisation takes pride in my accomplishments	3.6	1.1
My organisation really cares about my wellbeing	3.5	1.1
My organisation values my contributions to its wellbeing	3.5	1.1
Burnout		
Average burnout score for survey sample	3.8	1.0
There are days when I feel tired before I arrive at work	4.0	1.1
After work, I tend to need more time than in the past in order to relax and feel better	3.7	1.2
During my work, I often feel emotionally drained	3.6	1.1
After my work, I usually feel worn out and weary	3.9	1.1

Appendix 4 Demographic comparisons for scale scores

Table 7: Comparing wellbeing measures across demographics

Group	Personal wellbeing	Distress composite	Anxiety	Depression
Gender				
Male	65.4 (21.6)	3.6 (3.2)	2.0 (1.8)	1.7 (1.7)
Female	68.3 (20.2)	3.9 (3.2)	2.3 (1.9)	1.6 (1.6)
Nonbinary – Transgender	60.1 (26.6)	4.5 (3.4)	2.3 (2.0)	2.3 (1.8)
Age				
Less than 25 years	69.9 (17.5)	4.5 (3.4)	2.6 (2.1)	1.9 (1.8)
26 to 35 years	65.3 (20.0)	4.6 (3.3)	2.6 (1.9)	2.0 (1.7)
36 to 45 years	64.9 (19.6)	3.9 (3.1)	2.2 (1.8)	1.7 (1.6)
46 to 55 years	67.3 (22.9)	3.2 (3.0)	1.8 (1.7)	1.4 (1.7)
Over 55 years	72.7 (22.9)	2.4 (2.8)	1.4 (1.6)	1.0 (1.4)
Employee status				
Permanent or ongoing	66.7 (20.3)	3.9 (3.2)	2.2 (1.8)	1.7 (1.7)
Contract or casual	64.4 (23.4)	4.0 (3.3)	2.3 (1.9)	1.7 (1.7)
Self-employed	68.7 (22.1)	3.4 (3.3)	1.9 (1.8)	1.5 (1.7)
Registration status				
Registered architect	67.9 (21.2)	3.4 (3.1)	1.9 (1.8)	1.5 (1.6)
Other	64.5 (20.4)	4.5 (3.3)	2.6 (1.9)	2.0 (1.8)
Career tenure				
Less than 5 years	64.0 (19.9)	4.7 (3.2)	2.6 (1.9)	2.1 (1.7)
6 to 10 years	65.6 (20.6)	4.2 (3.3)	2.4 (1.8)	1.8 (1.7)
11 to 20 years	65.5 (20.1)	3.9 (3.1)	2.3 (1.8)	1.7 (1.6)
21 to 30 years	68.7 (21.1)	3.1 (3.0)	1.8 (1.7)	1.4 (1.6)
More than 30 years	72.4 (23.8)	2.4 (2.9)	1.3 (1.7)	1.0 (1.5)
Occupation				
Director – Partner – Principal	71.5 (21.0)	3.0 (3.0)	1.7 (1.8)	1.3 (1.5)
Associate Director – Senior Associate	67.6 (18.8)	3.5 (3.1)	2.0 (1.7)	1.5 (1.7)
Associate	66.3 (19.7)	3.6 (2.9)	2.0 (1.8)	1.6 (1.5)
Project Leader	67.3 (20.8)	4.2 (3.2)	2.4 (1.8)	1.8 (1.7)
Senior Team Member	60.8 (21.7)	3.7 (3.0)	2.1 (1.8)	1.6 (1.6)
Team Member	64.1 (21.1)	4.6 (3.4)	2.6 (1.9)	2.0 (1.8)
Graduate position	62.1 (18.9)	5.0 (3.2)	2.9 (1.9)	2.2 (1.7)
Administration – Finance	64.3 (35.6)	3.6 (3.5)	1.8 (1.8)	1.8 (1.8)
Practice management – Business Support	67.0 (21.5)	4.3 (3.5)	2.4 (2.0)	1.9 (1.8)
Business Development	68.6 (16.4)	4.6 (2.4)	3.2 (1.9)	1.4 (0.9)
Communications – Graphics	75.3 (17.9)	5.1 (3.3)	2.8 (1.6)	2.3 (2.1)
Disciplinary field				
Architecture	66.3 (21.2)	3.8 (3.2)	2.1 (1.8)	1.6 (1.6)
Landscape Architecture	61.5 (21.0)	3.8 (1.5)	2.2 (1.0)	1.6 (0.7)
Urban Design	72.7 (18.8)	3.8 (3.3)	2.1 (1.8)	1.6 (1.8)
Heritage and Conservation	73.2 (20.0)	3.6 (2.9)	2.2 (1.7)	1.4 (1.4)
Interiors	66.4 (20.7)	5.0 (3.3)	3.0 (1.9)	2.0 (1.8)
Project Management	79.3 (16.6)	2.1 (2.3)	1.1 (1.2)	1.0 (1.4)
Construction	68.9 (18.6)	3.7 (3.1)	1.4 (1.5)	2.3 (1.8)

Table 8: Comparing career adaptability measures across demographics

Group	Career agency	Career balance	Career optimism	Career support	Career satisfaction
Gender					
Male	4.1 (0.6)	3.4 (1.0)	3.4 (1.1)	3.7 (1.0)	3.3 (1.0)
Female	4.1 (0.6)	3.3 (1.0)	3.4 (1.1)	3.7 (1.0)	3.4 (0.9)
Nonbinary – Transgender	4.0 (0.5)	3.2 (0.6)	3.1 (1.0)	3.6 (0.8)	3.6 (0.6)
Age					
Less than 25 years	4.1 (0.6)	3.4 (1.0)	3.9 (0.8)	4.2 (0.7)	3.4 (0.8)
26 to 35 years	4.1 (0.6)	3.2 (1.0)	3.4 (1.1)	3.8 (0.9)	3.3 (0.9)
36 to 45 years	4.1 (0.6)	3.3 (1.0)	3.4 (1.1)	3.6 (1.0)	3.3 (1.0)
46 to 55 years	4.1 (0.6)	3.4 (1.0)	3.3 (1.1)	3.6 (1.0)	3.4 (1.0)
Over 55 years	4.2 (0.7)	3.6 (1.0)	3.5 (1.1)	3.6 (1.1)	3.6 (1.0)
Employee status					
Permanent or ongoing	4.1 (0.6)	3.3 (1.0)	3.4 (1.1)	3.7 (1.0)	3.4 (0.9)
Contract or casual	3.9 (0.7)	3.4 (1.0)	3.3 (1.2)	3.6 (1.1)	3.1 (1.1)
Self-employed	4.1 (0.6)	3.4 (1.0)	3.6 (1.0)	3.7 (1.0)	3.4 (0.9)
Registration status					
Registered architect	4.1 (0.6)	3.4 (1.0)	3.4 (1.1)	3.7 (1.0)	3.4 (1.0)
Other	4.1 (0.6)	3.3 (1.0)	3.4 (1.1)	3.8 (1.0)	3.3 (0.9)
Career tenure					
Less than 5 years	4.0 (0.6)	3.3 (1.0)	3.6 (1.0)	3.9 (0.9)	3.2 (0.8)
6 to 10 years	4.1 (0.6)	3.3 (1.0)	3.3 (1.1)	3.8 (0.9)	3.2 (0.9)
11 to 20 years	4.1 (0.6)	3.2 (1.0)	3.4 (1.1)	3.6 (1.0)	3.4 (1.0)
21 to 30 years	4.1 (0.6)	3.3 (1.0)	3.4 (1.1)	3.6 (1.0)	3.4 (1.0)
More than 30 years	4.2 (0.7)	3.7 (1.1)	3.5 (1.1)	3.6 (1.0)	3.6 (1.1)
Occupation					
Director – Partner – Principal	4.2 (0.6)	3.4 (1.0)	3.6 (1.0)	3.7 (1.0)	3.6 (0.9)
Associate Director – Senior Associate	4.1 (0.5)	3.2 (1.0)	3.2 (1.1)	3.6 (1.0)	3.5 (0.9)
Associate	4.1 (0.6)	3.3 (0.9)	3.3 (1.0)	3.7 (1.0)	3.4 (0.9)
Project Leader	4.1 (0.6)	3.4 (0.9)	3.4 (1.1)	3.8 (1.0)	3.3 (0.9)
Senior Team Member	4.0 (0.7)	3.2 (1.0)	2.9 (1.2)	3.4 (1.0)	3.0 (0.9)
Team Member	4.0 (0.6)	3.2 (1.0)	3.3 (1.1)	3.8 (0.9)	3.1 (0.9)
Graduate position	4.0 (0.6)	3.3 (1.0)	3.6 (1.0)	3.9 (0.9)	3.1 (0.8)
Administration – Finance	4.4 (0.5)	4.0 (0.5)	2.3 (0.6)	3.1 (1.2)	3.5 (0.6)
Practice management – Business Support	4.0 (0.5)	3.6 (0.8)	3.3 (1.1)	3.8 (0.9)	3.5 (0.9)
Business Development	4.1 (0.8)	2.7 (0.9)	4.0 (0.9)	3.9 (0.9)	4.0 (0.7)
Communications – Graphics	4.3 (0.4)	3.7 (1.1)	3.7 (1.1)	4.0 (0.8)	3.9 (0.7)
Disciplinary field					
Architecture	4.1 (0.6)	3.3 (1.0)	3.4 (1.1)	3.7 (1.0)	3.3 (0.9)
Landscape Architecture	4.1 (0.5)	3.2 (0.8)	3.6 (1.0)	3.7 (0.8)	3.5 (0.9)
Urban Design	4.1 (0.4)	3.3 (1.1)	3.6 (1.0)	4.0 (0.8)	3.5 (1.1)
Heritage and Conservation	4.3 (0.5)	3.7 (0.7)	3.7 (0.7)	3.8 (1.1)	3.8 (0.9)
Interiors	4.1 (0.6)	3.1 (0.9)	3.3 (1.2)	3.7 (1.0)	3.5 (0.9)
Project Management	4.5 (0.5)	3.6 (1.2)	3.4 (1.2)	3.4 (1.2)	3.6 (1.1)
Construction	4.0 (0.7)	3.4 (1.0)	3.3 (1.3)	3.9 (0.7)	3.5 (1.4)

Table 9: Comparing experience of working life measures across demographics

Group	Professional identity	Professional commitment	Autonomy	Competence	Relatedness
Gender					
Male	3.3 (1.1)	3.3 (0.9)	4.4 (0.7)	4.3 (0.7)	3.7 (0.9)
Female	3.4 (1.0)	3.3 (0.8)	4.3 (0.7)	4.2 (0.7)	3.6 (1.0)
Nonbinary – Transgender	3.1 (1.1)	3.2 (1.0)	4.3 (0.6)	4.2 (0.4)	3.5 (1.2)
Age					
Less than 25 years	3.2 (1.0)	3.4 (0.8)	3.8 (0.8)	4.0 (0.8)	3.7 (0.9)
26 to 35 years	3.2 (1.0)	3.2 (0.8)	4.1 (0.7)	4.1 (0.7)	3.6 (0.9)
36 to 45 years	3.2 (1.1)	3.2 (0.8)	4.3 (0.7)	4.2 (0.7)	3.5 (1.0)
46 to 55 years	3.5 (1.0)	3.4 (0.8)	4.6 (0.7)	4.4 (0.7)	3.8 (0.9)
Over 55 years	3.7 (1.0)	3.6 (0.8)	4.6 (0.6)	4.5 (0.6)	3.9 (0.9)
Employee status					
Permanent or ongoing	3.3 (1.0)	3.3 (0.8)	4.3 (0.7)	4.2 (0.7)	3.6 (1.0)
Contract or casual	3.2 (1.1)	3.2 (0.9)	4.1 (0.9)	4.1 (0.7)	3.6 (1.0)
Self-employed	3.5 (1.1)	3.4 (0.8)	4.7 (0.5)	4.4 (0.6)	3.9 (0.9)
Registration status					
Registered architect	3.4 (1.0)	3.4 (0.8)	4.5 (0.7)	4.3 (0.7)	3.7 (1.0)
Other	3.1 (1.1)	3.2 (0.9)	4.1 (0.8)	4.1 (0.7)	3.5 (0.9)
Career tenure					
Less than 5 years	3.2 (1.0)	3.3 (0.8)	3.9 (0.7)	4.0 (0.7)	3.5 (0.9)
6 to 10 years	3.2 (1.0)	3.2 (0.8)	4.2 (0.7)	4.2 (0.6)	3.5 (1.0)
11 to 20 years	3.2 (1.1)	3.2 (0.9)	4.4 (0.7)	4.2 (0.7)	3.6 (1.0)
21 to 30 years	3.5 (1.0)	3.5 (0.8)	4.6 (0.7)	4.4 (0.7)	3.8 (0.9)
More than 30 years	3.7 (0.9)	3.6 (0.9)	4.6 (0.6)	4.5 (0.7)	4.0 (0.9)
Occupation					
Director – Partner – Principal	3.6 (1.0)	3.6 (0.8)	4.7 (0.5)	4.5 (0.6)	4.0 (0.9)
Associate Director – Senior Associate	3.4 (1.0)	3.3 (0.8)	4.5 (0.5)	4.4 (0.7)	3.7 (1.0)
Associate	3.3 (1.0)	3.2 (0.8)	4.3 (0.6)	4.2 (0.7)	3.7 (0.9)
Project Leader	3.4 (0.9)	3.3 (0.8)	4.3 (0.7)	4.2 (0.7)	3.7 (1.0)
Senior Team Member	3.2 (1.1)	3.1 (0.9)	4.1 (0.8)	4.1 (0.7)	3.4 (1.0)
Team Member	3.1 (1.1)	3.1 (0.9)	4.0 (0.7)	4.0 (0.7)	3.4 (1.0)
Graduate position	3.3 (0.9)	3.3 (0.8)	3.8 (0.8)	3.9 (0.7)	3.5 (0.9)
Administration – Finance	2.1 (1.0)	3.3 (1.1)	4.1 (0.6)	4.4 (0.4)	2.9 (1.1)
Practice management – Business Support	2.9 (1.2)	3.3 (0.8)	4.2 (0.8)	4.3 (0.6)	3.6 (1.0)
Business Development	3.1 (0.9)	3.8 (0.8)	4.3 (0.5)	4.3 (0.7)	3.4 (1.2)
Communications – Graphics	3.3 (1.2)	3.8 (0.8)	4.7 (0.4)	4.7 (0.5)	3.8 (0.9)
Disciplinary field					
Architecture	3.4 (1.0)	3.3 (0.8)	4.3 (0.7)	4.2 (0.7)	3.7 (1.0)
Landscape Architecture	3.5 (0.7)	3.4 (0.7)	4.1 (0.8)	3.7 (0.8)	3.4 (1.0)
Urban Design	3.4 (0.8)	3.5 (0.8)	4.4 (0.6)	4.3 (0.6)	3.9 (0.9)
Heritage and Conservation	3.3 (1.2)	3.4 (1.0)	4.4 (0.5)	4.4 (0.5)	3.5 (1.2)
Interiors	3.2 (1.1)	3.3 (0.8)	4.3 (0.7)	4.2 (0.7)	3.5 (0.9)
Project Management	3.2 (1.1)	3.0 (1.0)	4.6 (0.5)	4.6 (0.5)	3.8 (0.8)
Construction	3.1 (0.8)	3.2 (1.3)	3.6 (1.0)	4.1 (1.0)	3.3 (1.3)

Table 9 (cont): Comparing experience of working life measures across demographics (cont.)

Group	Perfectionism standards	Perfectionism discrepancy	Workplace morale	Perceived org support	Burnout
Gender					
Male	4.3 (0.7)	2.9 (1.1)	3.6 (0.8)	3.5 (1.0)	3.7 (1.0)
Female	4.4 (0.7)	3.0 (1.1)	3.6 (0.9)	3.5 (1.0)	3.9 (0.9)
Nonbinary – Transgender	4.0 (0.6)	2.5 (1.0)	3.6 (0.8)	3.7 (1.0)	3.7 (0.9)
Age					
Less than 25 years	4.5 (0.7)	3.0 (1.0)	3.8 (0.9)	3.6 (1.1)	3.9 (1.0)
26 to 35 years	4.5 (0.7)	3.1 (1.1)	3.5 (0.8)	3.4 (1.0)	4.1 (0.8)
36 to 45 years	4.4 (0.7)	3.0 (1.1)	3.5 (0.9)	3.5 (1.1)	4.0 (0.8)
46 to 55 years	4.4 (0.7)	2.8 (1.1)	3.7 (0.8)	3.7 (0.9)	3.7 (0.9)
Over 55 years	4.2 (0.7)	2.7 (1.0)	3.8 (0.7)	3.7 (0.9)	3.1 (1.2)
Employee status					
Permanent or ongoing	4.4 (0.7)	3.0 (1.1)	3.5 (0.9)	3.5 (1.0)	3.9 (0.9)
Contract or casual	4.2 (0.8)	3.0 (1.1)	3.5 (0.9)	3.6 (1.0)	3.7 (0.9)
Self-employed	4.4 (0.7)	2.8 (1.1)	3.7 (0.6)	3.9 (0.8)	3.5 (1.0)
Registration status					
Registered architect	4.4 (0.7)	2.9 (1.1)	3.6 (0.8)	3.6 (1.0)	3.7 (1.0)
Other	4.4 (0.7)	3.1 (1.1)	3.5 (0.9)	3.5 (1.0)	4.0 (0.8)
Career tenure					
Less than 5 years	4.4 (0.8)	3.2 (1.1)	3.5 (0.9)	3.4 (1.0)	4.0 (0.8)
6 to 10 years	4.4 (0.6)	3.0 (1.1)	3.5 (0.9)	3.4 (1.0)	4.0 (0.8)
11 to 20 years	4.4 (0.7)	3.0 (1.1)	3.5 (0.9)	3.5 (1.0)	4.0 (0.8)
21 to 30 years	4.4 (0.7)	2.8 (1.1)	3.7 (0.7)	3.7 (0.9)	3.7 (0.9)
More than 30 years	4.3 (0.7)	2.7 (1.1)	3.8 (0.8)	3.8 (0.9)	3.0 (1.2)
Occupation					
Director – Partner – Principal	4.4 (0.6)	2.8 (1.1)	3.8 (0.7)	3.9 (0.8)	3.5 (1.0)
Associate Director – Senior Associate	4.5 (0.5)	2.8 (1.1)	3.5 (0.9)	3.4 (1.0)	3.9 (0.9)
Associate	4.4 (0.7)	3.1 (1.1)	3.6 (0.8)	3.6 (1.0)	4.0 (0.8)
Project Leader	4.3 (0.7)	2.9 (1.0)	3.4 (0.9)	3.3 (1.0)	4.0 (0.8)
Senior Team Member	4.3 (0.7)	3.1 (1.0)	3.5 (0.7)	3.2 (1.0)	3.8 (1.0)
Team Member	4.4 (0.7)	3.1 (1.1)	3.3 (1.0)	3.2 (1.1)	4.0 (0.8)
Graduate position	4.3 (0.8)	3.2 (1.0)	3.5 (0.8)	3.5 (0.9)	4.0 (0.8)
Administration – Finance	3.8 (1.2)	2.0 (1.2)	3.9 (0.8)	2.8 (1.3)	4.0 (0.6)
Practice management – Business Support	4.3 (0.7)	3.0 (1.3)	3.6 (0.9)	3.7 (0.9)	4.0 (0.8)
Business Development	4.2 (0.8)	2.7 (1.1)	4.1 (0.7)	3.5 (1.0)	4.2 (0.5)
Communications – Graphics	4.6 (0.5)	2.8 (1.2)	3.8 (0.9)	3.8 (1.0)	3.6 (1.2)
Disciplinary field					
Architecture	4.4 (0.7)	3.0 (1.1)	3.6 (0.8)	3.5 (1.0)	3.8 (1.0)
Landscape Architecture	4.3 (0.7)	2.9 (1.1)	3.4 (0.8)	3.1 (1.0)	4.0 (1.0)
Urban Design	4.6 (0.5)	3.1 (1.1)	3.7 (0.6)	3.8 (0.8)	3.8 (0.9)
Heritage and Conservation	4.4 (0.6)	2.9 (1.3)	3.7 (0.8)	3.7 (0.8)	3.5 (1.1)
Interiors	4.5 (0.6)	3.0 (1.1)	3.4 (0.9)	3.4 (1.0)	4.2 (0.8)
Project Management	4.5 (0.6)	2.5 (1.2)	3.3 (1.0)	3.3 (1.1)	3.6 (1.2)
Construction	4.3 (0.9)	3.0 (1.0)	3.9 (0.9)	3.7 (1.0)	3.5 (0.6)