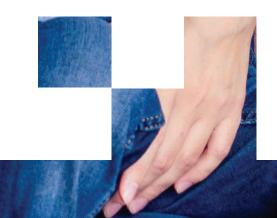


GIVING EVERYBODY A VOICE

NOVEMBER 2024



ACKNOWLEDGEMENT OF COUNTRY

The University of Technology Sydney (UTS) acknowledges the Gadigal people of the Eora Nation, the Boorooberongal people of the Dharug Nation, the Bidiagal people and the Gamaygal people, upon whose ancestral lands our university stands and on whose Country this report was written. We would also like to pay respect to the Elders, both past and present, acknowledging them as the traditional custodians of knowledge for these lands.

OTHER ACKNOWLEDGEMENTS

We would like to acknowledge the Master Builders Association of NSW and all the people from across the NSW construction industry who generously gave their time to assist with this research.

The aim of this research was to give everyone in the NSW construction industry a voice in the 5-day week debate, and it is their views that we seek to represent in this report.

We would also like to acknowledge the people whose research we build on within the construction industry and the wider fields of management, organisational studies and the psychological, social and behavioural sciences.

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Acknowledgement of support:

The authors would like to acknowledge the invaluable assistance of Dr Anh Le and Ella Holmgren in the collection, organisation and analysis of data which underpins this report.

We would also like to thank Brian Seidler, Cameron Spence and Elena Worsfold from the Master Builders Association of NSW for their invaluable assistance in supporting this research.

Citation:

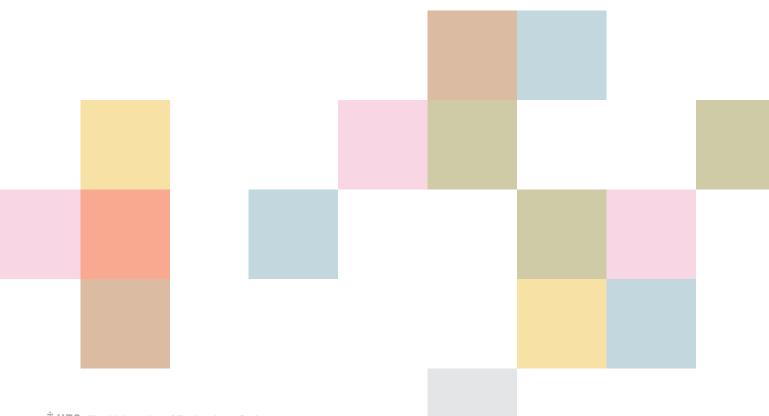
Loosemore, M and Alkilani S (2024) Will a 5-day week promote meaningful work-life balance in the New South Wales building and construction industry? Giving everyone a voice, University of Technology Sydney, Australia

Disclaimer:

Any errors or omissions are those of the authors only. Every effort was made to accurately collect, analyse and report the data and information contained in this document. As in all research projects, the findings and conclusions are subject to the limitations of the data and methodologies used and described.

Website:

www.masterbuildersindustryresearch.com



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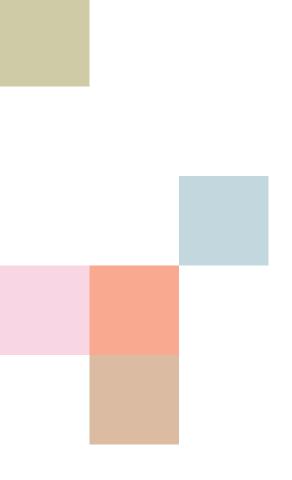
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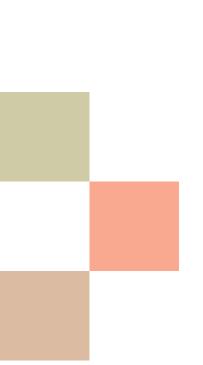


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GLOSSARY OF TERMS

Alternate/customised schedules Any work schedule that is different from the schedule used by others in a business which is often implemented to accommodate employee needs, such as family responsibilities or medical needs.

Alternative shift-based models Such as using temporary/replacement workers and/or additional shift workers during the week to allow people to work normal hours during the week:

Annualised models Staff work a 32-hour average working week, calculated over a one-year period.

Balanced working time Work policies and practices which are designed to benefit the WLB of arrangements workers, taking into account the commercial imperatives and constraints of the organisations they work for.

Combined alternate 6-day and Combinations of working days that average out to 5 days per week over **4-day weeks** defined periods.

Compressed work schedule It involves compressing a normal working week into fewer days by working longer hours on those days. For example, a '4 x 10' compressed work week would compress a normal working week of 5 days at 8 days a day (40 hours) into four 10-hour days.

Compulsory shorter working Companies require all employees to move to a shorter working week weeks while remaining on their existing salary.

Conditional 5-day week People normally work a 5-day week, but there is a provision for them to be required to work a 6-day week in certain circumstances (for example, if the project falls behind). This may also be tied to ongoing performance monitoring.

Decentralised working Different parts of an organisation operate on different work patterns, arrangements resulting in a mixture of models.

Enterprise bargaining A form of collective bargaining in which wages and working conditions are negotiated at the level of the individual organisations, as distinct from sectoral collective bargaining across whole industries.

Enterprise bargaining A collective industrial agreement is negotiated between either an agreement (EBA) employer and a trade union acting on behalf of employees or an employer and employees acting for themselves. Once established, they are legally binding on employers and employees covered by the Enterprise bargaining agreement.

Fifth day stoppage A company shuts down operations for one common day per week.

Fixed working schedules Set days and hours which create alternative work weeks (for example, an employee may work Tuesday to Saturday from 8 am to 4 pm)

Flexible work arrangements Companies provide employees with flexibility over when, how and where they work.

Flexitime Employees can arrive and depart from work at different times within certain limits. Employees are often required to work a certain number of core hours (e.g., 11 am to 2 pm) in a certain place (e.g. a site or office). Employees can then work the remainder of their hours when and where they wish.

Four-day week A 5-day week is reduced to a 4-day week in a 100:80:100 model where people have to increase their productivity to keep their wages and hours the same during the week (produce 100% of the work for 80% of the time and 100% pay).

Full-time schedules The total number of hours worked per week is set, but the hours per day and number of days worked to achieve this are not (for example, an employee may work 40 hours per week over a three-week cycle by working five 8-hour days, four 10-hour days, or six 6.5-hour days).

Hard 5-day week Where sites are shut down on weekends apart from in exceptional circumstances as agreed with the client or where activities pose unacceptable risks to workers and public health, such as tower crane dismantling, erection and maintenance, major road closures/diversions, demolition, critical services outages, interfacing with existing buildings, continuous plant activity etc.

Hybrid soft 5/6-day week People have the option of working 6 days if they prefer (for example, tradespeople may prefer weekends rather than extended hours during the week). In this model, some people work 5 days, and others work 6 days alongside each other.

Hybrid soft and hard 5-day week Different trades work soft and hard 5-day weeks at different times during a project depending on project progress, their criticality to the program and their ability to safely and productively work longer working hours during the week.

Hybrid working Hybrid working - employees can combine working from different locations (home, in transit or in the office) in a way which suits their lives.

Job sharing Two or more employees work on a part-time or reduced-time basis to perform a job normally fulfilled by one person working full-time.

No Set Schedule Employees can work whenever they choose if the work gets done by a set deadline. They can take the rest of the week off if they finish their task in less than the allotted time.

On-call schedule An employee is available to work any time, day or night, as the employer demands. These often rotate between employees so that one person doesn't have to work all the time.

Optional shorter working weeks Companies provided employees with the option of moving to a shorter working week while remaining on their existing salary.

Overtime work schedules An employee works extra hours for paid overtime at a higher hourly rate (e.g., time-and-a-half or double time).

Part-time schedules An employee works fewer hours or days a week than a full-time role.

Project-based working Working on specific time-limited projects. This is especially relevant to project-based industries like construction.

Protected shorter working week The scheduled day off is protected, and managers make a special effort to ensure working on those days is not necessary.

Pure 5-day week A 6-day week is reduced to a 5-day week on a 100:83:100 model by requiring people to increase their productivity to keep their wages and hours the same during the week (produce 100% of the work for 83% of the time and 100% pay).

Remote working An employee works away from the place of business either by choice or as an organisational requirement.

Rigid shorter working weeks Companies dictate the 'common' days off that employees can take.

Rotating schedules Employees work varied shifts over a time-limited cycle (for example, an employee could work five consecutive 10-hour shifts followed by three days off over a 25-day cycle.

Semi-flexible schedules Employees can choose to work earlier or later than normal hours as long as they work the required number of hours. For example, to avoid traffic, an employee may decide to start at 7 am and leave at 4 pm, giving them an additional hour available in the evening.

Shift work schedules Groups of workers work different fixed schedules to keep a business working around the clock. For example, a first shift may work from 7 am to 3 pm, a second from 3 pm to 11 pm, and a third from 11 pm to 7 am.

Soft 5-day week A rotating working schedule to ensure people work no more than 5 days while keeping sites open for 6 days on weekends.

Split schedules Employees may start early, have several hours off, and then work late to finish their day off.

Staggered working week Staff take alternating days off. For example, the staff may be divided into two teams, one taking Mondays and the other taking Fridays off.

Team-based arrangements Project teams agree internally to work flexible schedules within the constraints of project deliverables to suit the different personal needs and circumstances of different team members in a fair and transparent way.

Telecommuting Employees can work remotely some of the time but must work at the place of business for specific meetings or tasks.

Time off in lieu An employee can work additional unpaid hours every day beyond their contractual obligation, which then accrue to take a day off at some point in the future. This is the basis of RDOs negotiated for construction workers in the construction industry EBAs.

Time-banking Permitting workers to build up credits or accumulate debits in hours worked, up to a maximum amount over periods ranging from several weeks, months to one year or even longer.

Unpredictable work schedules Employees' work schedules change from week to week in an unpredictable way.

Unprotected shorter working The scheduled day off is conditional and can be altered at short notice week by managers.

Work-life balance The individual perception that work and non-work activities are compatible and promote growth in accordance with an individual's current life priorities.

EXECUTIVE SUMMARY

Work-life balance (WLB) occurs when people have the time and resources required to meaningfully meet their expectations in both work and non-work domains.

Everyone has a right to a good WLB, and poor WLB is in no one's interests. Significant evidence shows that workplace cultures that provide employees with a healthy WLB represent the foundation of a productive and resilient workforce and prosperous economy.

However, numerous studies have identified poor WLB as a significant and growing problem for people who work in the Australian construction industry. These studies argue that a harmful culture of long work hours and presenteeism, exemplified by a 6-day working week, has become normalised across the industry. This poses significant risks to peoples' physical and mental health and well-being, family and social relationships and workplace productivity, safety and engagement.

Numerous strategies have been employed to address this problem with varying degrees of success. Recently, proposals for a 5-day working week have been advocated, based on several research studies which argue that a shorter working week will produce numerous benefits for the industry, its clients and the people who work within it, including their families and communities.

This study aims to ensure that everyone in the NSW building and construction (B&C) industry has a voice in this profoundly important debate. More specifically, it aims to explore the following questions:

- 1. What does work-life balance mean to people working in the NSW B&C industry?
- 2. What is the current work-life balance of people working in the NSW B&C industry and how does this vary across the workforce?
- 3. How will moving to a 5-day week affect people's work-life balance in the NSW B&C industry?
- 4. What are the potential costs and benefits of moving to a 5-day week for individuals, companies and clients in the NSW B&C industry?
- 5. What is the level of support for moving to a 5-day week in the NSW B&C industry?
- 6. Will a 5-day week assist in increasing women's participation in construction roles within the NSW B&C industry?

To answer these questions, data was collected from a wide variety of people and organisations across the NSW B&C industry. This included people from a range of demographic backgrounds (gender, age, ethnicity, marital status, etc.) and who performed a variety of different roles (senior executive; off-site/head office administration/management; on-site management/admin/supervision; construction worker/tradesperson/labourer). Data was also collected from a variety of different organisations (small, medium and large contracting firms and trade subcontractors) in a variety of different sectors (commercial building, residential building, civil construction and developers) and regions (urban, regional and remote).

The research on which this report is based was undertaken between September 2023 and September 2024 and involved four main stages:

- Stage 1: A thorough and systematic literature review of high-quality peer-reviewed international research evidence, within and outside the Australian construction industry, relating to the potential impact of a 5-day working week on WLB;
- Stage 2: Semi-structured interviews (supported by documentary analysis) with a representative sample of 47 project planning, cost, project management, human resource management and safety experts from 28 contracting and development firms across the NSW B&C industry. This stage aimed to explore the cost, time and other project performance implications of moving to a 5-day week in practice for firms across the construction supply chain and their clients.
- Stage 3: Semi-structured interviews with a representative sample of 64 people from across the NSW B&C industry to understand the individual WLB implications of various 5-day week scenarios and the level of support for each. This stage aimed to understand, from the perspective of those working across the NSW B&C industry, the individual WLB implications of moving to a 5-day week and the level of support for this.
- Stage 4: A major NSW state-wide survey of 1475 people who are representative of the NSW B&C industry, using a range of standardised WLB instruments. The aim was to understand the current WLB of people working across the industry, the factors that affect it, the implications of moving to a 5-day week on their WLB and the level of support for this across the NSW B&C industry.

In presenting this report, we have sought to give a voice to as many individuals and businesses as possible from across the NSW B&C industry. Only by understanding, respecting and considering all perspectives in this highly diverse industry can one make an informed and responsible evidence-based decision about the pros and cons of a 5-day week.

It has become clear through this research that the answers to the above research questions are very complex and nuanced. There is no simple answer, and to fully understand the complexity of the relationship between WLB and proposals to introduce a 5-day week across the construction industry, one needs to read this entire report in detail.

However, in summary, this report finds that one cannot generalise about WLB, long working hours and working weeks across the industry. For many people working in the NSW B&C industry, WLB is good, while for others, it can certainly be improved. On-project salaried workers, young people, those in relatively junior roles and some waged workers, especially on large inner-city commercial, residential and infrastructure projects appear to be doing the heavy lifting, in terms of hours and days worked. This is related to the high value of weekend working on these projects. However, there are exceptions in other parts of the industry, where individual firm cultures can be problematic.

This report finds that while many people want to work a 5-day week, few are prepared to pay for it. While there are always exceptions to the rule, few people are willing or able to take a pay cut or work longer hours during the week or increase their productivity to suit. Furthermore, few businesses are willing or able to accept the risks involved and it is likely that few clients are prepared to adjust their programs and budgets to suit. The report also finds that improving peoples' WLB is far more complex than just reducing hours and days worked. It is most effectively and efficiently achieved by providing people with greater and more equal access to flexibility and control over when, where, how and how long they work. If flexibility can be improved across the construction workforce, then there is no need to incur the potential risks of a 5-day week to individuals, employers and clients of the industry. However, unequal access to flexibility across the workforce and doubts about whether it can be achieved in practice create strong support for a mandated hard 5-day week (weekends off) as a way of forcing the industry to shut down. Nevertheless, this support varies significantly across the workforce and is contingent on two conditions:

- People's ability to significantly increase productivity to compensate for the lost weekend working (given that most are not prepared to tolerate lower pay and are concerned about the personal, safety and productivity implications of working longer hours during the week).
- Minimal risk to employers in the industry on which people's WLB ultimately depends (this requires clients to share the potentially significant risks of a 5-day week, be more transparent, reduce liquidated damages and plan their projects from the start as a 5-day week).

Given that most people consider these conditions unrealistic, if a 5-day week was imposed, then a soft 5-day week (where sites are kept open on weekends) is currently seen as the best compromise between individual, business and client interests. An increasing number of companies across the industry are already implementing this model with minimal risks to all involved.

In summary the key findings of this report are:

Improving peoples' WLB is much more complex than simply reducing hours or days worked a week. WLB is a highly individual, dynamic and complex construct which is affected by a range of personal, work-related, economic, environmental, cultural, psychological and societal factors;

Universal claims about the WLB benefits of a 5-day working week should be treated with great caution. The relationship between a 5-day working week and WLB is highly complex and not as simple as it may first appear. The jury is still out on the pros and cons of a 5-day week. The answers are highly complex and vary over time and from project to project and person to person depending on a wide range of factors such as the 5-day week model employed, people's personal circumstances, WLB preferences, age, gender, job, marital status, wider economic conditions and the culture, nature and types of organisations they work for and projects they work on. These factors and their complex interdependencies will only become evident over time as more research is undertaken across a variety of emergent 5-day week scenarios and contexts:

3

There has been some useful previous research into WLB and the 5-day week in the construction industry. However, it often has significant methodological limitations in providing a reliable basis for decision-making. These methodological limitations are not always acknowledged by researchers or evident to the uninformed, uncritical, or time-poor reader;

4

Previous research into WLB and the 5-day week in the construction industry is problematic in numerous ways:

- It is often repetitive and re-published in multiple outlets. This can give the impression that there is more reliable empirical evidence than there actually is;
- It is often based on small, narrow and unrepresentative samples and anecdotal case studies which cannot be generalised to the wider construction industry;
- It does not reflect the full diversity of people, firms, projects and clients which make up the building and construction industry;
- It is biased towards off-site staff;
- It is biased towards those who live in traditional family-type structures (married with children);
- It fails to account for the complexity of non-work factors that can cause poor work-life balance;
- It tends to assume work and life are in conflict;
- It tends to ignore the positive aspects of work;
- It tends to take the employee's view and ignore the employer's perspective;
- It largely ignores the long-term interdependency between employee, employer and client interests;
- It tends to ignore the economic context in which research occurs which can dramatically affect attitudes towards work hours (timing is crucial);
- It tends to treat projects in isolation and ignore the wider portfolio implications of implementing a 5-day week across the whole construction industry;
- The variety of 5-day week models considered is currently very limited.

5

Emotions, politics, ideological agendas and current media reports about a 4-day working week in other industries shape people's perceptions about the merits of a 5-day week in the construction industry in a way which can obscure the limitations of existing evidence and research;

c

There is evidence that long working hours and long working weeks, which can potentially undermine a healthy WLB, are common in some parts of the NSW B&C industry. While 61% of people surveyed had an acceptable, good or very good self-reported WLB, it was also found that 39.8% worked more than 5 days per week, 26.1% worked over 55 hours per week, and 36.7% more than 10 hours per day. These are the limits at which WLB deteriorates rapidly. However, the relationships between WLB and days worked per week, hours worked per day and hours worked per week are complex and non-linear. Very low working hours and short working weeks can also cause poor WLB;

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On average, the people in the sample worked between 50-55 hours a week, just under 10 hours per day and just over 5 days a week. On-project salaried workers, young people, those in relatively junior roles and some waged workers, especially on large city commercial, residential and infrastructure projects appear to be doing the heavy lifting, in terms of hours and days worked. However, there are exceptions in other parts of the industry, where individual firm cultures can be problematic, and projects of any size and location can be poorly resourced. Work pressures are exacerbated even further when partners are also working, by study, caring and family responsibilities and if there is no local family support, as is often the case when people relocate their families for projects;

8

One must earn the right to a good WLB in the construction industry. Many young salaried workers feel that long hours have become a 'right of passage' into more senior and privileged roles with greater control over WLB. Many feel powerless in being able to control their WLB and are faced with the choice of either having to accept the status quo, change their jobs or leave the industry - which few want to do. Given the large investments of time and money to qualify to work in the industry, this generates feelings of being 'trapped between a rock and a hard place';

9

The higher risk of working unhealthily long hours and long working weeks on major commercial and infrastructure projects in urban/city locations is strongly linked to the high value of Saturday/ weekend working on these projects. This means it was relatively more productive and efficient to work a 6-day week. The value of Saturdays/weekends was, in turn, related to a wide range

of variables such as:

- DA Conditions;
- Project complexity, logistical challenges (road closures, proximity to existing buildings/ operations, noise, etc.) and physical site constraints;
- Numbers of people working on site and access to resources such as crane time, etc.;
- Project program and budget constraints;
- The way that risks for project delays are distributed between clients and contractors;
- Levels of liquidated damages for project delays, etc;
- EBA conditions which determine the cost of working weekends relative to the productivity dividends gained.

There are many reasons for this normalisation of long working hours and long working weeks in parts of the construction industry. These include:

- Projects being assessed, designed, planned and tendered on a 6-day week model;
- Competitive tendering and a habit of clients assuming that the lowest price equals the best value:
- An increasingly uncertain construction environment combined with unrealistic programs and budgets;
- One-sided fixed term and fixed price contracts underpinned by excessive liquidated damages;
- A psychological dependency by planners and construction managers on relying on weekends for catch-up time and float;
- Increasing finance costs for developers which place greater emphasis on shorter project durations:
- Increasing costs of living pressures, causing people to choose to work longer hours and weeks, even at a cost to their health and well-being;
- Labour and skills shortages in many areas;
- Increasing material prices and rising labour costs without an incumbent increase in productivity;
- A lack of incentive to innovate to adopt a shorter working week model;
- Institutionalised workplace cultures and management practices which expect people to sacrifice their WLB and do anything at any cost to get the job done;
- EBA provisions which have gradually reduced the working week and increased the cost of labour year-on-year with no commensurate increase in productivity;
- Falling labour productivity in general across the industry.

Despite the normalisation of long working hours, long working weeks and poor WLB in some parts of the construction industry, it is problematic to make generalised statements across the whole construction industry. Although WLB could be improved in some people parts of the industry by reducing hours and days worked, there is a high variation in hours and days worked and WLB across the industry, which depends on a wide range of factors such as:

- Personal characteristics such as age, marital status, sex, personal circumstances and commitments within and outside work, personal preferences about work-life balance, caring and family responsibilities, study commitments etc.
- People's seniority and how long they have worked in the industry;
- People's role or trade;
- Whether they work on-project or off-project;
- How they get paid (salaried or waged);
- The sector of the industry (infrastructure, commercial, industrial, residential, housing);
- The characteristics of the project a person works on, such as size, complexity, location, procurement approach, contractual arrangements (risk distribution), culture, the stage of a project's life-cycle, the level of project resourcing; the time of year; and the progress of their project etc.
- An employer's culture and the WLB provisions they provide;
- EBA conditions.

The current delineation between salaried and waged workers in explaining working hours and weeks across the industry is simplistic. Despite large variations in hours and days worked and WLB across the industry, this report found that people can generally be categorised into three main groups:

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- Off-project salaried staff in management and administrative roles.
 - This group tends to have the best WLB, the greatest control over their working lives and the most predictable and controllable hours of all three groups. The more senior they are, the more control they have. People in this group may have to occasionally work a weekend, but typically this is rare because of their relative independence from the day-to-day activities of individual projects.
- On-project salaried workers in professional and supervisor roles:
 - Site-based administrators (WHS, environmental officers/managers, etc.): These people often work across multiple projects and tend to have an acceptable WLB. They tend to work the occasional late night or weekend and are constantly available for work, even on their days off.
 - Contract managers, project managers, Site foremen, site managers, site engineers, site supervisors and some leading hands: This group works at the project coalface and is highly exposed to daily project demands. They tend to have the poorest WLB, highest work intensity and most unpredictable and uncontrollable hours of all groups working, especially for younger or more junior staff who haven't earned their stripes.
- On-project wage earners in operative/trade roles:
 This group's hours and WLB vary the most compared to the other groups. Some members of this group have good control over their WLB and the hours and days a week they work, while others have far less control and a poor WLB. This is determined by a wide range of factors which are largely outside their control, which include the nature and working traditions of their trade; project characteristics (location, complexity, time pressures, workforce size, DA conditions, project stage, unexpected events, etc.); where they live/commuting time; the culture of their project and employer; their EBA; and the amount of overtime they are required to work or chose to work etc.;
- Many salaried workers felt a sense of inequity and unfairness at the amount of unpaid overtime they worked compared to their waged counterparts. This was a significant factor in driving support for a 5-day week, especially those involved in on-project roles who tended to work the longest hours and most unpaid overtime of all;
- When asked about their ideal working week and WLB (considering their employers' commercial interest and the current realities of project programs and budgets), people expressed a widespread desire for greater flexibility and control over when, where, how and how long they worked. People wanted a stronger delineation between work and life outside work and more time to switch off and wind down between work periods. Ideal hours of work were significantly lower than those being currently worked and were within the range of 35-45 hours a week, for 4/5- days a week;
- There is widespread support for a 5-day week. However, the benefits are not considered clear, universal or guaranteed. Furthermore, few people are willing or able to take a pay cut to work a 5-day week, work longer hours during the week or lift their productivity to accommodate. While a 5-day week could improve WLB for many people in the industry, support for a 5-day week varies significantly across the industry depending on a wide range of variables such as the 5-day model employed (hard, soft, hybrid); age; marital status; family/caring commitments; sex; one's role or trade; the way one is paid (salaried or waged); broader economic conditions; cultural factors; costs of living pressures; commuting times; the relative value of Saturday working on a project; and the risks which a 5-day week pose to business on which the prosperity and security of people depend (which in turn depends on the willingness of clients to take or share the risk by adapting their programs and budgets to suit);
- Instinctively, at a superficial and emotive level, a 5-day week seems to be an obvious answer to improving WLB. However, it is far more complex than this, and the relationship between the potential risks and benefits of different models for individuals and their employers is not always clear. A 5-day week can improve WLB for many people. However, for others, it can be detrimental, and there can be significant costs to business, which can feedback to negatively impact WLB in the long term;
- At an individual level, the potential risks and benefits of a 5-day week vary significantly depending on a range of factors such as the model employed, a person's role, age, marital and family status, sex, culture, personal circumstances and preferences; wider economic and social factors; existing work cultures and WLB provisions; and the nature of the project they are working on etc.;

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People raised a number of ethical questions about imposing a 5-day week on the whole industry carte blanche. Common concerns included:

- People not feeling comfortable to speak out about their concerns: Some felt they would be publicly ostracised for doing so;
- Not having an equal voice in the 5-day week debate: The 5-day week debate was seen to be driven by a relatively small, unrepresentative group of salaried off-project professionals working for larger contractors who tended to work on large government infrastructure projects. These were seen to have the most to gain from a 5-day week;
- There was significant resentment among waged earners that salaried workers would take away their options to work weekends without them being consulted;
- The 5-day week debate was distracting attention from other equally important threats to WLB across less represented parts of the industry;
- The timing of the current 5-day week debate (the relative abundance of work) had skewed arguments in favour of a hard 5-day week. Many felt that attitudes would become more negative when work became more scarce;
- The positive aspects of work were not being adequately considered in the current 5-day week debate;
- Many smaller firms in industry would inevitably have to accept the risk of a 5-day week if mandated. They are least able to manage them;
- Clients and firms are not being held accountable for the WLB impacts of their current decisions.

19

There were divided opinions on whether a mandated 5-day week would increase female recruitment, retention and progression in the construction industry. Many considered a compressed 5-day working week (working longer hours during the week) bad for women, and much research evidence supports this. Furthermore, the vast majority saw the delineation between men and women as irrelevant and unhelpful and based on outdated assumptions about women's caring role in society. Most (including female respondents) argued that the industry needs to be made more appealing to both men and women;

20

Most felt that a 5-day week could make the industry more attractive to both men and women. Some had moved to firms that operate a 5-day week because of the WLB it provided and tended to report a better WLB than those working for 6-day week firms. However, support for a 5-day week was conditional on not damaging the competitiveness of the businesses they worked for and not reducing the high salaries that attracted many people to the industry. High salaries were widely regarded as adequate compensation for high hours and long weeks worked;

21

It was universally agreed that the best way to improve WLB in the construction industry was not to impose a 5-day week but to improve access to flexible working to give people more control over when, where, how and how long they worked. This was also easier to implement than imposing a 5-day week and less risky and costly to businesses and clients;

22

Current flexibility provisions in the construction industry were often compared poorly to other industries. There was also significant inequality of access to flexible working across the construction workforce. Inequality of access to overtime and mistrust that flexibility provisions would not be implemented, monitored and enforced in practice made a mandated 5-day week attractive to many people who felt relatively disadvantaged by the current situation;

23

Most people felt there was no need to mandate a 5-day week if equality of access to flexible working across the construction workforce was improved. This was considered a far more effective and efficient way to improve WLB across the industry, which balanced the interests of individuals, businesses and clients. This could be achieved by:

- Requiring firms to develop and implement formal flexibility policies and communicate them effectively across the workforce;
- Ensuring flexibility initiatives are formal rather than informal and equally available to everyone regardless of role, age, gender and project circumstances;
- Developing complementary policies to support flexible working, such as measuring a person's performance based on outputs rather than hours worked;
- Ensuring flexibility policies and initiatives are both responsive to the needs of individuals and their organisations and project teams so that organisations do not suffer and people are not ostracised for adopting flexible working.

- 24
- Given the project-based nature of production in the construction industry and the deep loyalties many people have to their project teams, the best approach to achieving WLB was widely considered to be one where individuals can negotiate flexibility within the context of the projects they work on to mitigate potential impacts on other team members and project deliverables;
- 25
- A variety of alternative 5-day week models are emerging across the industry, ranging from soft to hard to hybrid approaches. In simple terms, a soft 5-day week involves working a rotating schedule to ensure people work no more than 5 days while keeping sites open for 6 days on weekends. A hard 5-day involves projects being closed on weekends apart from limited and exceptional activities where the public or other workers may be at risk. In both options, people are typically required to work longer hours during the week to make up for their lost sixth day (a compressed working week). However, a compressed week is less common in the soft 5-day week model because the benefits of Saturdays (catch-up days, float, setting up for the next week, etc.) are maintained (Saturdays are especially valuable for some projects);
- 26
- It was widely felt that different models suited different projects and firms depending on a wide range of factors. Some projects suit a hard 5-day week, some suit a soft 5-day week, and some suit a 6-day week. This depends on a range of variables that determine the value of Saturday working, such as project size, project location, project complexity, DA conditions, client attitudes towards sharing risk to program and budget, and wider prevailing economic conditions, etc. It was also widely agreed that to unilaterally impose a hard 5-day week on the industry would not respect these differences and would produce negative results in many projects where this model was not suited;
- 27
- There was widespread awareness of the 4-day week model where people retain 100% pay for 80% of their normal hours for maintaining 100% productivity. However, this was considered by most people to be a step too far at the present time due to the potential costs and time implications and significant challenges of increasing productivity by the necessary amount (and measuring it) in many parts of the workforce and industry;
- 28
- A soft 5-day week is widely considered to be a good compromise between business and individual interests because firms can operate a 6-day week on-site and retain the benefits of weekend working (very significant on some projects) while allowing people to work 5 days a week. This model has been operated and refined by many firms in the industry with little impact on their business and project costs and budgets for clients;
- 29
- A growing number of firms have been voluntarily operating a soft 5-day week for some time, for both off-project and on-project staff, with minimal impact on project programs, costs and business competitiveness. This allows them to operate a 5-day week while remaining competitive when bidding against other 6-day week firms. It also means that clients do have to change their project programs and budgets to accommodate a 5-day week, as the vast majority of respondents felt was the case, to make a hard 5-day week viable;
- 30
- From an individual perspective, most people prefer an imposed mandatory hard 5-day week (especially salaried workers). This is because it would force the whole industry to shut down on weekends and stop the temptation to work weekends if the project is behind. It would also prevent firms from gaming the system by claiming they are working a 5-day week when they are actually working 6 days. By forcing people to take a weekend, they could relax, dissociate from work, recuperate, re-energise and re-set for the next working week. They could also socialise on the weekend with friends and family and attend sporting events etc.;
- 31
- People prefer to increase their productivity to compensate for the lost Saturday in a hard 5-day week model. People were generally reluctant to contemplate a reduction in pay or work a longer working week (a compressed model). However, it was acknowledged that increasing productivity during the week was difficult for some people due to the physical and cognitive constraints of their work. Furthermore, measuring productivity is difficult in many roles due to a lack of reliable methodologies, data for benchmarking and complex interdependencies with other roles/trades;
- 32
- Individual support for a hard 5-day week was also significantly tempered by significant and widespread concerns about the potential risks of a hard 5-day week from both an individual WLB and business perspective.

33

Many people were cynical about the hard 5-day week and considered it more of a myth than a reality. It was widely noted that many hard 5-day projects regularly work 6 and even 7 days a week (especially when projects fall behind) and that it was common for principal contractors to impose 6-day week contracts on their subcontractors in case they need them to work a 6-day week. The implementation, monitoring and enforcement of a 5-day week by clients was also seen as unreliable and variable;

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A few firms have begun to tender on and experiment with a hard 5-day week in response to growing government requirements to submit alternative 5-day and 6-day tenders. However, most considered there to be a lack of rigorous and reliable evidence for assessing such bids and making decisions about the best value for money. Few projects have finished, and data about cost and time implications depends on a range of assumptions and is highly variable;

35

There were many concerns that a hard 5-day week would not improve WLB for many people - especially a compressed 5-day week. This involves working longer hours during the week to compensate for the loss of weekends. Some of these concerns include increased fatigue during the week (especially for heavy physical or cognitively demanding jobs), safety risks, reduced productivity and inability to meet daily caring, family and personal responsibilities during the week. Many also noted that due to the longer working days, administrative work normally done at the end of every day during the week would be shifted to the weekend to be done in peoples' own time, even if the site was shut down;

36

There were also significant concerns among many waged earners about the loss of overtime payments for not being able to work weekends, which were being exacerbated by increasing costs of living pressures (especially for young people with large mortgages and those not able to work longer days during the week due to family and other weekday commitments or the physically and cognitively demanding nature of their work). This means that a hard 5-day week would introduce significant inequities in being able to earn overtime;

37

If prevented from working weekends, there were fears that many workers would likely look for weekend work on other 6-day week jobs with competitors, in the unregulated grey construction economy, or leave the industry altogether. This could result in much higher levels of fatigue than a normal 6-day week. It could also exacerbate the current labour shortage crisis in many parts of the industry;

38

There were also many concerns about the business impacts of a hard 5-day week, which most felt could not be separated from individual interests. While there was a high level of variability and uncertainty as to the implications of moving to a hard 5-day week, estimates varied between +5% and +25% for time (with an average of +14.55%) and 0.4% to 4% for cost (with an average of 1.88%). This typically varied depending on a wide range of other assumptions such as the extent to which a project was planned and designed from the start to be a 5-day week, the nature of the project itself (location, DA conditions, complexity/risk, number of workers etc.), the productivity value of Saturday working, client willingness to adjust programs and budgets, market and wider economic conditions, subcontractor attitudes towards working Saturdays, risk of liquidated damages etc.

39

It appears that subcontractors are also currently under-pricing the cost impacts of a hard 5-day week. This is because they can absorb the cost on other 6-day week projects. If a hard 5-day week were mandated, this would be more difficult, resulting in potential price increases of up to 20% (well beyond the worst-case scenario estimated by principal contractors).

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Most respondents agreed that the industry would only realistically move to a hard 5-day week if clients were prepared to:

- Plan and assess their projects from the start as a 5-day week and not retrospectively impose it at the tender stage;
- Take or share the risk by changing their budget and program expectations to suit;
- Be more consistent and create a level playing field by not permitting firms to submit competing 5-day and 6-day tenders on the same project;
- Remove incentives for firms to revert back to a 6-day week, such as excessive liquidated damages and contractual risk distributions, which shift the risk of uncontrollable delays onto the industry:
- Be more transparent in how they define a 5-day week, assess its merits against a 6-day

week and monitor and enforce it in practice;

However, this was seen as unlikely for most clients, especially private clients, in the current economic climate. While sharing these potential risks may be considered by some progressive government clients, many argued that such support is inconsistent and varies between and within government departments;

- Smaller firms are likely to suffer the most from a hard 5-day week because they do not have the power to persuade clients to share the above risks. Furthermore, they are likely to be handed down the risk by principal contractors, and smaller firms are also least able to control and manage them;
- Depending on who accepts the risks of the extra costs and time associated with a hard 5-day week, potential impacts could include bankruptcies in already stretched smaller firms, which make up the vast bulk of the construction industry and shelved marginal projects, which undermine the economic prosperity of one of Australia's largest industries;
- Many argued that the timing is poor to mandate a hard 5-day week given the current economic environment (high material and labour costs, high interest rates, low margins, labour shortages for businesses and increasing cost of living for individuals, etc.). Given that most clients will want to pass the risk of a 5-day week to the industry, this would impose even greater costs and risks onto already stretched businesses;
- There are significant concerns about the productivity implications of a hard 5-day week, despite most people agreeing that Saturdays have become less productive and more expensive in recent years. The productivity impacts of a hard 5-day week vary significantly from project to project and model to model, largely depending on the value of Saturdays, which in turn is influenced by a wide range of factors such as project size, complexity, location, DA conditions, overtime labour costs and productivity etc.;
- While there were varied opinions on the potential safety impacts of a hard 5-day week, the majority of respondents thought that safety would be compromised by a 5-day week because longer daily working hours during the week would create significantly greater cumulative fatigue than working on the weekends (especially if people sought extra work on weekends);
 - There is an important industrial relations dimension to the 5-day week debate. Gradual increases in labour costs over numerous years without any commensurate increase in productivity have, in many parts of the industry, required a 6-day working week to meet increasingly demanding program deadlines. Many people consider how RDOs are treated an important and unresolved aspect of the 5-day week debate. Furthermore, the removal of a 6-day week option by virtue of a recently introduced inflexible RDO calendar developed for a 9-day fortnight by the industry's largest union increases costs further by making weekend working even more likely to meet program targets, significantly reduces options in dealing with the myriad of challenges faced in meeting program deadlines, and reduces flexibility for workers. Such challenges include weather-dependent delays, insufficient skilled labour and other issues that cannot be addressed by simply extending the hours in a 5-day week to make up for a sixth day lost, notwithstanding the potentially negative impact on productivity achieved by compressing 6 days' output into 5 days. What should also be considered is the impact of a 5-day week on the livelihood of those workers who can no longer rely on weekend overtime to address the increasing cost of living challenges.
 - Many thought a hard 5-day week would only be viable if it was standardised across the whole industry and that the only way to do this was for the government to use DA conditions, which restrict Saturday working. However, this was seen as a blunt instrument which could cause potential harm if it did not reflect the diversity of people and projects across the industry. This is impractical and would be difficult to monitor and enforce. Furthermore, non-DA projects would likely become an unmonitored grey economy for those who want to work a 6-day week, and such an approach would not absolve clients from their need to share the potential risks of a hard 5-day week (the biggest factor in determining the viability of a hard 5-day week);

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Given our key findings listed above, it is clear that generalised statements about the benefits of a 5-day week and its impact on WLB are highly simplistic and potentially damaging to the industry – especially for the many small firms that dominate it. The real value of the 5-day working week debate is that it has started a conversation about the relationship between:

- The industry's culture and its impact on employee WLB and, in turn, well-being;
- What companies are expecting of their employees (the balance between the pursuit of profit and employee well-being);
- What can be reasonably expected of the industry by clients in terms of time, price and risk without impacting people's lives negatively (the role of clients in determining work-life balance);
- What the industry can reasonably ask of people to deliver to comply with these requirements (WLB) within the
 constraints of what people are capable of delivering (productivity constraints);
- The need for companies to make a reasonable profit to provide people with secure and decent employment into the future which provides a healthy WLB (the balance between profit and people).
- The need for collaboration between employers, employees, their representatives and clients of the construction industry who set the constraints under which the industry works.

Given the complexities and limitations in existing evidence about the WLB implications of a 5-day week we have revealed in this research, our results call for a much more nuanced debate about the relationship between a 5-day week and WLB. They caution that despite the best intentions, if policies or management decisions are developed and implemented without consideration of these complexities and limitations, the imposition of a 5-day working week may be counter-productive and could do more harm than good to many people across the construction industry and the firms and clients on which their WLB ultimately depends.



KEY RECOMMENDATIONS

Many insights and recommendations are provided throughout this report. However, to improve WLB in the NSW B&C industry, we make six key recommendations:

1

Provide increased access to employment flexibility across the industry to bring it into line with other industries and give people more control over when, where, how and how many hours and days they work. This is a more responsive, effective and efficient way to improve WLB than imposing a rigid 5-day week.

It is important that these flexibility provisions:

- Are communicated and made available to everyone in the NSW B&C industry regardless of their age, role, gender, employer, sector or location, etc.;
- Can be negotiated between individuals and their employers and teams at a project level to minimise potentially negative impacts on business viability and culture, project delivery and other employees and project team members;
- Are effectively implemented, monitored and enforced in practice;
- Are not undermined by workplace cultures which enforce and/or encourage adherence to excessive hours of work which can cause an unhealthy WLB.

2

Before implementing any policies and requirements around the imposition of a 5-day week, more research is needed to ensure decisions are evidence-based and do no harm to individuals, businesses and clients.

It is important that such research needs to:

- Give everyone an equal voice in the debate;
- Employ larger and better-structured samples and case studies which are more representative of the B&C industry's full diversity at an individual, business, project and client level;
- Consider a greater range of 5-day models which could evolve across the industry if it were mandated or encouraged;
- Be undertaken in a broader range of economic contexts where attitudes to WLB, hours and days worked may vary;
- Better consider the interdependencies between business, client and individual interests;
- Better consider the positive aspects of work and avoid the tendency to treat work and life as in conflict;
- Not treat projects in isolation but consider the implications of implementing a 5-day week across the entire industry (different types of projects, clients firms, sectors and regions, etc);
- Better consider the potential downsides as well as upsides of a 5-day week;
- Better consider the non-work-related factors which may cause poor WLB and avoid assuming that work is the only cause of poor WLB;
- Better consider the mediating effect of the construction industry's relatively high salaries and wages on WLB;
- Use a broader mix of qualitative and quantitative methods to ensure a variety of perspectives and maximise opportunities for participants to have a voice in the research process and outcomes.

2

Work to identify and reduce inequities and variations in WLB across the industry workforce. Focus on parts of the industry where poor WLB is a higher risk (large, complex, commercial, residential and infrastructure projects in inner city locations) and on roles especially exposed to a poor WLB (young people, junior people, those working in 'on-project' salaried roles which do not get paid overtime; and some tradespeople).

Inequities and variations addressed should relate to the following:

- Hours worked which provide a healthy WLB:
- Days a week worked which provide a healthy WLB;
- Access to flexibility provisions which allow people control over when, how, where and how long they work;
- Compensation for overtime worked.

Address the way that projects are procured and contracted by clients to reduce the pressure and incentives for the industry to adopt work practices that require people to work long hours and weeks, which are potentially detrimental to WLB.

These include:

- More realistic project programs and budgets;
- Avoidance of competitive tendering which preference lowest price and a 6-day week;
- Fairer distribution of project risks for project delays and avoid excessive liquidated damages for project overruns;
- More collaborative approaches to procurement which can facilitate the above.

If a 5-day week is proposed for a project then clients need to adjust the way that they procure and contract projects to maximise the opportunities and mitigate the potential risks for individuals, businesses and themselves.

Specifically, clients should:

- Avoid mandating a specific 5-day week across all projects to allow flexibility and innovation in the 5-day model employed to ensure that it is suited to the characteristics and context of each project;
- Ensure that projects are assessed, planned, and designed on a 5-day week business model from the start, rather than imposing it retrospectively at the tender stage on a 6-day week modelled project;
- Be more certain about their commitment to a 5-day week and avoid confusing the market by asking for competing 5-day and 6-day tenders;
- Be more transparent and clearer about what a 5-day week means and how it is assessed compared to 6-day week tenders if both are permitted;
- Be very cautious about employing a hard 5-day week because of the elevated risks at an individual, business and client/project level (especially a compressed model where people work longer hours during the week);
- Be willing to take or share the potential costs and time risks involved (especially in a hard 5-day week) and avoid the use of excessive liquidated damages which encourage firms to work a 6-day week;
- Consider a soft 5-day week or a hybrid model if a hard 5-day week is not viable to provide a better compromise between individual, client and business interests;
- Ensure a 5-day week is supported by other complementary initiatives such as training, mental health support, payment by productivity rather than hours worked and technologies and flexibility and support initiatives which can support a better WLB.

Work to address the many other causes of poor WLB across the construction industry.

These include:

- Institutionalised work cultures at a firm and project level which encourage presenteeism and enforce adherence to unhealthy hours and days worked;
- Skills and labour shortages which can increase work hours and intensity for existing workers in the industry;
- Falling labour productivity and the increasing dislocation between increasing labour costs and productivity improvements;
- Poor project planning and project management practices which perpetuate a psychological dependency on weekends as a catch-up day or float;
- Poor safety and working conditions, conditions of employment and access to healthy site facilities:
- Resistance to innovations which can increase productivity and reduce pressure to work long working hours and weeks (employers must share those productivity benefits with employees);
- Exploitative business practices such as sham contracting, modern slavery, wage theft, and insecure forms of low autonomy and low-paid work such as zero-hours contracts;
- Toxic workplace cultures which expose people to bullying, sexism, racism and any form of inequality or discrimination;
- Lack of support to help people achieve a healthy WLB, such as flexible work and carers

leave provisions, family-friendly workplaces, childcare support, mental health support, WLB training, time management training, opportunities for people to contribute to their communities and meeting their caring, cultural and religious commitments and support for people struggling with the cost of living and housing security issues etc.;

 Making clients and employers more accountable for reporting and protecting the WLB of people working on their projects and businesses.



1. INTRODUCTION

This section defines what we mean by work-life balance (WLB) and a 5-day week. It discusses significant limitations and gaps in existing research around the WLB impacts of a 5-day working week. These formed the basis of this report's aims, research questions and research methodology which are also outlined.

1.1 Background

The United Nations (UN) Universal Declaration of Human Rights (1948), to which Australia is a signatory, states that everyone has the right to reasonable hours of work including rest and leisure and periodic holidays with pay (Article 24).

The International Labour Organization (ILO), the UN's oldest agency founded in 1919, is primarily responsible for putting this principle into action by promoting the concept of 'decent work' which provides opportunities for a balanced, rewarding, meaningful and satisfying life within and outside the workplace. In its formative Declaration of Philadelphia (1944) a series of key principles which embody the work of the ILO were established which state that people who work for a living should not be treated like 'inanimate commodities' and just another 'factor-of-production' by their employers but as human beings who irrespective of race, age, job or sex, have the right to pursue both material well-being and their emotional, relational and spiritual development in conditions of freedom, dignity, respect, economic security and equal opportunity. These are also the principles which underpin this report.

In this report work-life balance (WLB) is defined as:

"The individual perception that work and non-work activities are compatible and promote growth in accordance with an individual's current life priorities"

(Kalliath and Brough 2008: 324).

As we will show in this report, poor WLB has been identified by many studies as a long-standing problem in the construction industry, with significant potential risks to physical and mental health and well-being, family, friendship and workplace relationships, productivity, safety, work quality and employee engagement etc.

However, we also show that the concept of WLB is a highly personal, dynamic, complex and multidimensional construct with interrelated emotional, social, cultural and financial dimensions.

Poor WLB can occur for many reasons (personal, work-related, environmental and societal), and there is an important interdependency between individual and organisational interests, which is too often ignored in the 5-day week and wider WLB debate.

This report shows that many strategies to improve WLB have been employed across the industry with varying degrees of success. These include increasingly standard initiatives such as parental and carers leave, flexible working, family-friendly workplaces, job sharing, family and carers leave, and well-being and mentoring programs etc.

Recently, proposals for a 5-day working week to be imposed across the industry are being advocated to improve employee WLB and wellbeing. A range of different models are being discussed, employed and trialled which can essentially be categorised into soft, hard, hybrid, alternative, conditional and combined models. A selection of possible models include:

- A soft 5-day week which involves working a rotating schedule to ensure people work no more than 5-days while keeping sites open for 6 days on weekends (for example by giving people alternate Saturdays and weekdays off). This model includes two common sub-models:
 - Compressed soft 5-day week– where people work 1-2 hours longer every day to make up for the lost weekend;
 - Pure soft 5-day week (100:83:100) where people work 5-days rather than 6-days and have to increase their productivity to keep their wages and hours the same during the week (produce 100% of the work for 83% of the time and 100% pay);
- Hybrid soft 5/6-day week where people have the option of working 6-days if they prefer (for example, trades people may prefer to weekends rather than extended hours during the week). In this model, some people are working 5-days and others are working 6-days alongside each other.

- A hard 5-day week is where sites are shut down on weekends apart from in exceptional circumstances
 as agreed with the client or where activities pose unacceptable risk to worker and public health such as
 tower crane dismantling, erection and maintenance, major road closures/diversions, demolition, critical
 services outages, interfacing with existing buildings, continuous plant activity etc. This includes two submodels:
 - Compressed hard 5-day week— where people work 1-2 hours longer every day to make up for the lost weekend;
 - Pure hard 5-day week (100:83:100) where people work 5 days rather than 6 days and have to increase their productivity to keep their wages and hours the same during the week (produce 100% of the work for 83% of the time and 100% pay);
- Hybrid soft and hard 5-day week models where different trades work soft and hard 5-day weeks at
 different times during a project depending on project progress, their criticality to the program and their
 ability to safely and productively work longer working hours during the week;
- Alternative shift-based models such as using temporary/replacement workers and/or extra additional shift
 workers during the week to allow people to work normal hours during the week;
- Conditional 5-day weeks where people normally work a 5-day week but there is always the provision for them to be required to work a 6-day week in certain circumstances (for example if the project falls behind);
- Combined alternate 6-day and 4-day weeks and other combinations that average out to 5 days per week over defined periods.

Perhaps the most controversial and radical model is the hard 5-day week because advocates are proposing this be imposed top-down across all government projects and ideally the industry as a whole.

As we show in this report, this is based on several key arguments which include:

- That the marginal business benefits of working weekends are not worth the costs to worker's WLB in terms of potential damage to workers' health and well-being and relationships with families and friends.
- That the economic costs of adopting a universal hard 5-day week are minimal and worth the social and health benefits of shortening the working week and releasing the weekend for other non-work activities.
- That there are many business benefits such as improved safety, productivity, quality, recruitment and workforce diversity and equity.
- That the benefits of a 5-day week are particularly strong for those groups argued to be most adversely
 affected by a culture of long working hours such as women, people with caring responsibilities, people
 at risk of poor mental health and suicide and young people who must balance study, work and other
 responsibilities etc.

However, this report provides evidence which questions these assumptions. It shows that the concept of WLB is highly complex, context-dependent and nuanced and that the relationship between moving to a five-day working week and WLB is not as simple as it may first appear to the uninformed. Any sweeping generalisations about the universal benefits of moving to a 5-day working week must therefore be treated with caution.

To ensure and support effective policy development and implementation and avoid the risk of doing more harm than good, it is critical that WLB research recognises the complexity and individual nature of WLB as a concept and considers the full diversity of the B&C industry and the implications of imposing a 5-day week from the multiple perspectives of every group who work in it. This includes the full range of backgrounds (genders, ages, ethnicities etc.), roles (senior executive; off-site/head office administration/management; on-site management/admin/supervision; construction worker/trades person/labourer), organisations (small, medium and large contracting firms and trade subcontractors), regions (city, regional and remote) and sectors (Commercial building, Residential building, Civil construction).

1.2 Aim and research questions

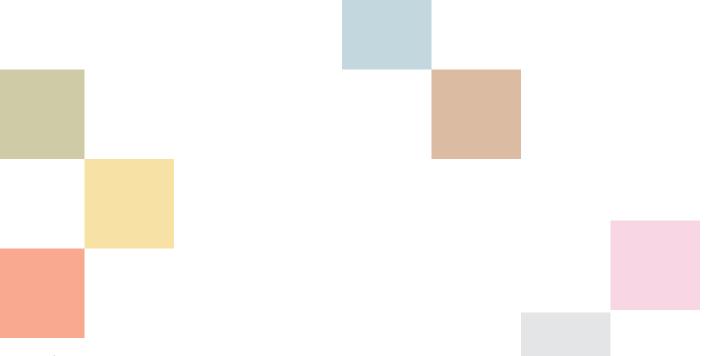
Given the limitations of existing research, the NSW MBA commissioned the University of Technology Sydney to investigate whether a 5-day week will promote WLB from the perspectives and experiences of those working across the entire NSW B&C industry.

We acknowledge that 4-day week (100:80:100) models are also being promoted on the margins of other industries in a number of countries including Australia. However, while we touch on the 4-day week debate in this report, this project focuses on the viability of the 5-day week because this is what is being advocated at the present time.

The overall aim is to give everyone in the NSW B&C industry a voice in this important debate. Specifically, the following research questions are explored in this report:

- 1. What does work-life balance mean to people working in the NSW B&C industry?
- 2. What is the current work-life balance of people working in the NSW B&C industry and how does this vary across the workforce?
- 3. How will moving to a 5-day week affect people's work-life balance in the NSW B&C industry?
- 4. What are the potential costs and benefits of moving to a 5-day week for individuals, companies and clients in the NSW B&C industry?
- 5. What is the level of support for moving to a 5-day week in the NSW B&C industry?
- 6. Will a 5-day week assist in increasing women's participation in construction roles within the NSW B&C industry?

This report precedes with a detailed systematic literature review of current WLB research within and outside the construction industry with a focus on the impacts of a 5-day week. This is followed by a detailed research methodology which describes how the data was collected and analysed to reflect people's diverse views and lived experiences about WLB and a 5-day week from across the entire industry. This forms the basis of the report's detailed findings and subsequent conclusions which address each of the above research questions and make recommendations to advance the current debate and provide a more reliable basis for considered evidence-based policy development and organisational decision-making in this area at both a project and business level.



2. WHAT DOES WORK-LIFE BALANCE (WLB) MEAN?

This section provides a definition of WLB and a common vocabulary for the NSW B&C industry to have a meaningful debate about the WLB implications of a 5-day working week. It discusses the complexity of the WLB concept and describes the variables which must be considered in any rigorous investigation of the WLB implications of a 5-day working week in the construction industry.

2.1 Getting the terminology right

The field of study about WLB is highly contested and can confuse the uninformed. First, there is no one commonly agreed-upon definition of what the term WLB means, both within and outside the construction industry (International Labour Organization 2023, Brough et al. 2020, Sui Pheng 2020). One of the challenges is that many definitions of WLB were produced during the 1980s and 1990s when the nature of society and work fundamentally differed from what they are today. Since then, we have experienced many societal changes which have affected the nature of work and our relationship with it. Chapter 3 discusses these in more detail, but they include:

- Changing employee and community expectations and awareness of socially responsible workplace practices and the benefits of WLB;
- Changes in men's and women's roles in work and society;
- · Regulatory reforms governing health and well-being in workplaces and WLB in general;
- Changing workforce demographics such as ageing, increased female participation and immigration;
- New family models which reflect changes in attitudes towards marriage and the sharing of family and caring responsibilities;
- Growth in research into and societal awareness of the negative impact of long work hours on mental health and well-being:
- Structural imbalances in employment and the rise of insecure work;
- Developments in artificial intelligence, information and communication technologies which automate many jobs, create a constantly connected world and enable new forms of workplace monitoring, informal, gig and cloud-based employment and collaborative, remote and hybrid working – all accelerated by the recent COVID pandemic.

Second, the WLB debate is more confusing because the term WLB is used interchangeably with other widely used terms such as 'work-life conflict', 'work-family conflict' and 'work-life alignment'. However, as discussed below, these terms have quite distinct meanings and can cause confusion if used loosely, as they often are in the construction industry WLB and 5-day week debate.

To avoid confusion, this report adopts the term 'work-life balance' (WLB). This is important because, as we show below, work and life are not always in conflict and incompatible and do not always need to be aligned to be in balance. Family is only one of many non-work domains which people in the construction industry have to consider in achieving a healthy WLB (Kodz 2002, Kalliath and Brough 2008, Pichler 2009, Brough et al. 2020, Gragnano et al. 2020). We concur with Brough et al.'s (2020) review of multiple WLB definitions, which concluded that "there is a general consensus that a preferred definition should focus on work-life rather than work-family, in order to include non-family responsibilities and demands".

2.2 Defining WLB in a way which respects the building and construction industry's diversity

Even after deciding to adopt the term WLB, further confusion can be caused by the wide variety of different WLB definitions, explanations, and models that exist. Some definitions of WLB include:

- WLB is achieved when an individual's right to a fulfilled life inside and outside paid work is accepted and respected as the norm for the mutual benefit of the individual, business and society (Kodz et al. 2002).
- WLB is the extent to which an individual is equally engaged in and equally satisfied with their work and non-work roles (Greenhaus et al. 2003).
- WLB is the capacity of the employee to pursue their work and non-work lives successfully, without
 excessive pressures from one undermining the satisfactory experience of the other. (Noon and Blyton
 2007).
- WLB is experienced when demands from the domain of (paid) work are compatible with demands from other domains, e.g. family or leisure time. A 'balanced' living then occurs when activities and aspirations in one domain do not have negative effects on activities in the other ones (Pichler 2009).
- WLB work-life balance is a psychological construct with a focus on personal perceptions of satisfaction and performance across multiple work and life domains and roles, which requires personal resources

such as energy, time, and commitment, which are negotiated and shared between individuals and their role-related partners in the work and family domains (Brough et al. 2020).

To avoid confusion, this report defines WLB as:

"The individual perception that work and non-work activities are compatible and promote growth in accordance with an individual's current life priorities"

(Kalliath and Brough 2008: 324).

We adopt this definition because it reflects the guiding aim of this research, which is to respect the diverse views, perceptions and dynamic life circumstances of those who make up a highly diverse construction industry. These people come from a wide range of backgrounds (genders, ages, ethnicities, etc.), roles (senior executive; off-site/head office administration/management; on-site management/admin/supervision; construction worker/trades person/labourer), organisations (small, medium and large contracting firms and trade subcontractors), regions (city, regional and remote) and sectors (Commercial building, Residential building, Civil construction). For example, while the family role remains central in non-working life for many people, it is not for everyone, especially in industries with a large proportion of young people like construction. In an industry as diverse as construction, it is also important to recognise the value of other roles outside work, such as cultural commitments, community work, religious commitments, sport and friendship commitments, etc.

2.3 WLB is more complex than just hours worked

Despite the lack of agreement over a clear definition of WLB, there is consensus that work hours are an important part of the WLB equation. However, there is also consensus that WLB is far more complex than just hours worked. It is very possible to work a short working week and have a terrible WLB and vice versa.

Research shows that a person's WLB is determined by a whole range of individual, organisational and societal factors and that all need to be considered when investigating the impacts of a 5-day week on WLB:

- Organisational factors which can cause poor WLB include: long work hours; dangerous work environments; toxic work cultures which expose people to poor working conditions, excessive control, bullying, inequity and discrimination; availability of provisions for people to achieve WLB such as mental health support programs, family and carers leave, flexitime and family-friendly workplaces with childcare facilities etc.
- Individual factors which can cause poor WLB include: parental or caring responsibilities; relationship
 problems outside work; financial pressures; a working partner who also needs to balance work and life;
 poor time management; insecure housing; an unsupportive partner; and personal resilience and time
 planning skills, etc.
- Societal factors which can cause poor WLB include: cultural expectations; religious rituals; cost of living pressures; transportation problems; disasters; and levels of support available from communities.

Furthermore, as we discuss in Chapter 3, research shows that healthy work hours vary from 39 to 50 hrs a week or more depending on a variety of factors such as the type of job, fluctuations in workloads over time, role salience (the value that people attach to work), work tempo, work control and the need to balance many potential non-work domains such as study and family and caring, sport and recreational commitments, healthcare, community and voluntary commitments etc. (Amatea et al. 1986, Lingard and Francis 2009, Dinh et al. 2017, Brauner et al. 2019, Lingard et al. 2021, Loosemore et al 2020). These variables change over a person's life, making the relationship between WLB and work hours even more complex.

It is important to consider all these variables in understanding the implications of implementing a 5-day week model in the construction industry. For example, some 5-day models do not reduce overall time in work but compress a 6-day week into 5 longer working days. While this may free up time on the weekend for sport and time with family and provide a longer break between working weeks to reduce fatigue risk, it may not necessarily improve WLB for people with weekday non-work commitments after work, such as late afternoon or evening family and caring responsibilities. People may also choose to work on their free weekends to generate extra income and create financial security, which can also be an important determinant of WLB.

As we discuss later in this report, research in other sectors, such as healthcare, transportation, and mining, shows that decisions to employ shorter working weeks should not be made lightly because their benefits are not universal across an industry's workforce. They are also very hard to reverse once made – even if they are found to be detrimental overall (see Tucker and Folkard 2012, Canadian Centre for Occupational Health and Safety 2017, Standing Committee on Economy and Gender and Economic Equality 2020).

2.4 A reduced working week does not always equate to satisfaction and involvement in life

Greenhaus et al.'s (1985, 2003) work shows that WLB is a multidimensional construct which has three main dimensions:

- 1. Time-balance (the amount of time devoted to work and non-work activities);
- 2. Satisfaction-balance (the amount of satisfaction derived from work versus non-work activities);
- 3. Involvement-balance (the degree of psychological involvement in work versus non-work activities.

This is important because it shows that WLB is far more complex than just hours worked. It also depends on the level of psychological involvement in work and non-work domains and the level of satisfaction derived from them. In other words, one can spend more time at home on weekends or during the week due to a 5-day week, but WLB might not improve or even get worse because that time may be low quality and unsatisfying. For example, one may still worry about work on weekends if work demands do not change in line with hours worked.

This is an important message to construction clients and employers contemplating requiring a 5-day week because they also set resource and time considerations that ultimately dictate work demands. It is not surprising, therefore, that despite numerous construction industry studies arguing that compressed working weeks offer numerous WLB benefits (see, for example, Lingard et al. 2007; Lingard and Francis 2009, Bradley et al. 2010; Brown et al. 2010; Townsend et al. 2011), that Tijani et al.'s (2020) systematic literature review of construction industry WLB research found that research results are inclusive and that more research is needed.

As discussed later in this report, numerous studies outside construction have also noted that the evidence of benefits associated with shorter working weeks is highly contradictory and contested and that one-sided arguments motivated by particular interests and agendas are too often put forward. For example, numerous studies have shown that compressed 5-day working weeks, such as those currently being promoted in the Australian Construction Industry (see Galea et al. 2021), are not beneficial for workers WLB and health in general and for women in particular. This is because of the extra pressures it can impose during the longer working weekdays on domestic, caring duties and childcare responsibilities, which women still take the burden of (Tucker and Folkard 2012, Standing Committee on Economy and Gender and Economic Equality 2020). However, men are now taking more of this burden (Australian Human Rights Commission 2008, Raiden and Räisänen 2013). For both men and women, the claimed WLB benefits of a compressed 5-day working week may be offset by lower involvement and satisfaction from weekly family activities due to longer working days (such as missing out on collecting children from school or participating in social activities during the week). A 5-day working week can, therefore, make WLB worse for some groups who may be better served by other types of interventions.

Research also shows that it is not just the amount of time spent on work which influences WLB but 'work tempo' and the 'degree of control' that someone has over their pace of work and working hours – which are already potentially damaging in the construction industry (Kodz et al. 2002, Love and Edwards 2005, Crook and Tessler 2021). The pressures imposed by re-organisation of work to fit within a 5-day week can potentially increase work tempo and reduce this control by taking away important project float, which is typically used on weekends to catch up with unexpected delays during the week. The toxic workplace cultures which appear to be institutionalised in many parts of the construction industry (Crook and Tessler 2021, Lingard et al. 2021, Galea et al. 2022) are also unlikely to go away (or could even be exacerbated) in moving to a 5-day week. As discussed in subsequent chapters of this report, it is clear that a range of interventions are needed to improve WLB in the construction industry and that moving to a 5-day week may make things worse for some people.

2.5 Work and life do not always have to be in balance

The term WLB implies that an individual must be equally engaged in, involved in and satisfied with life within and outside work (see, for example, Greenhaus et al. 2003). However, Brough et al. (2020) question this 50/50 balanced approach for failing to consider the diversity and changing nature of lives that people live, which are determined by a multitude of different cultural, gendered, age-related and circumstantial role preferences, attitudes towards work and subjective perceptions of what WLB means to them. As Brough et al. (2020) note, WLB is a relative and individualised concept that is more about achieving a self-perceived harmony between life within and outside work than a perfect 50/50 split. Like Kotera et al. (2019) in the field of construction, they offer a more expansive perspective which recognises that for some people, imbalances between work and life are inevitable and often advantageous in that problems in one domain (for example, a marriage breakdown) can be buffered by satisfaction in the other domain (success in work).

2.6 Time worked is just one factor that affects WLB

Further questions are raised about the seemingly straightforward relationship between time worked and WLB by the formative work of Carlson et al. (2000), who developed a model that proposed that WLB can be time-based, strain-based, or behaviour-based. Carlson also showed that WLB is bi-directional in that it can work in two directions: work can affect life (work-to-life conflict), and life can affect work (life-to-work conflict). This is critically important because, as illustrated later in this report (Chapters 4 and 6), most construction research focuses on the negative impacts of work on WLB, health and well-being and other aspects of life (see, for example, Bowen et al. 2014, Lingard et al. 2007, Bailey et al. 2022, Galea et al. 2020). Only a few studies have considered the impact that home life can have on work (see, for example, Lingard et al. 2010; Tijani et al. 2020):

- Time-based conflict work takes up time that someone would prefer to spend on family/nonwork activities, or family/nonwork activities take up time which one would prefer to spend at work:
- Strain-based conflict negative feelings or moods caused by work negatively impact family/nonwork activities or negative feelings or moods caused by family/nonwork activities negatively impact work activities:
- Behaviour-based conflict behaviour at work is not compatible with behaviour needed in family/nonwork activities, or behaviour that is appropriate in family/nonwork activities is not appropriate in work activities.

Research also shows that 'money-based conflict' can occur when financial pressures in one role interfere with fulfilling the requirement of another (Kodz et al. 2002, Ravenswood and Harris 2016, Marques and Berry 2021). For example, relative differences (both perceived and real) around entitlements at work, insecure work and remuneration compared to other groups (due to discrimination on the basis of gender, etc.) can cause financial constraints and frustrations which adversely affect non-work life domains in industries like construction (Lingard et al. 2021, Crook and Tessler 2021).

Considering the above insights, it is debatable whether working a 5-day week will improve strain-based or behaviour-based WLB (at least for everyone). For example, having to work longer hours in a compressed working week could potentially increase strain at work and/or at home for some people who have weekday caring responsibilities after work. As Chapters 4 and 6 illustrated, there have also been numerous studies which have highlighted potentially negative financial impacts (money-based conflict) for waged workers in moving to a 5-day working week, who can lose access to overtime payments from not working weekends (see for example Lingard et al. 2021). Although some 5-day week models can compensate for the loss of overtime by working overtime during the week, our results show that it is not possible for all workers to work longer hours during the week due to the nature of their work or other day-to-day commitments. For example, people who need high levels of concentration, who work in heavy trades or are exposed to the elements all day, can suffer dangerous levels of fatigue by working longer hours during the week. Some employers may not even offer the option and expect workers to work more intensively to increase productivity during the week, especially if clients do not move the program and budget constraints to suit a 5-day week. This is discussed in more detail later in this report (particularly in the results section).

2.7 WLB is the mutual responsibility of both employers and employees

Most WLB studies in the construction industry place the responsibility for poor WLB at the employer's door (Noon and Blyton, 2007). However, by showing that WLB can work in both directions (work-to-family and family-to-work), Carlson et al. (2000) showed that achieving good WLB is a mutual responsibility shared between employees and employers. As Kotera et al. (2019) note, experiences and feelings in work and life domains can often 'spill-over' into each other in both positive and negative ways. Therefore, the obligations of both employees and employers must be considered in any investigation of WLB in the construction industry.

Although there is relatively little research into life-to-work conflict, Frone et al. (1997, 2003) found that two main variables in the work domain (work overload and work distress) predicted work-to-family conflict, while two main variables in the family domain (family distress and parental overload) predicted family-to-work conflict. Desrochers and Sargent's (2004) work also indicates that WLB relates to how individuals create and maintain boundaries around work and life outside work to simplify and order their WLB. For example, some people may have the ability to (or prefer to) maintain high separation between work and life domains. In contrast, others may integrate both domains by choice or do not have the ability to separate them at all.

While some construction industry researchers have explored the bi-directional nature of the WLB relationship, this research shows that it largely works in one direction (work-to-family). No significant relationship has been found in life interfering with work (see, for example, Francis et al. 2006; Lingard and Francis 2007; Sui Pheng

et al. 2019; Tijani et al. 2020). Nevertheless, gender researchers in construction have argued that women in the construction industry face especially difficult challenges in managing the life-to-work interface due to their traditional role as carers in family relationships and society more broadly (see, for example, Galea et al. 2020, 2020a, Lingard et al. 2021).

The main point here is that the boundaries between life and work are permeable and work in both directions. WLB research should pay more attention to how this varies from person to person (across the full diversity of the construction workforce), how this can change over a person's life due to changes in interests and circumstances and how opportunities and power to manage these various shifting boundaries change over time and from person-to-person.

2.8 The positive impacts of work

Research also shows that work has many 'enrichment effects' (Carlson et al. 2006). However, these work benefits are too often ignored in WLB research within and outside the construction industry, which tends to focus on the negative aspects of work that detrimentally impact people's lives. As Carlson et al. (2006) note, too much research falsely implies that WLB involves cutting back on work to spend more time with the family and can ignore the many positive contributions that work can make to life. Research also shows that many people willingly work long hours and weekends for a whole host of reasons, many of which may be positive to non-work domains that enhance WLB.

The potential benefits of work, other than pay, are numerous and include:

- Sense of achievement, recognition and purpose;
- Teamwork and comradery;
- Socialisation and friendships;
- Physical and mental health;
- Career advancement;
- Income and material possessions;
- Satisfaction and self-worth:
- Status and power;
- Sense of fulfilment, identity and pride:
- Escaping negative relationships outside work.

The enrichment effect of work is especially important for people with high 'role salience' who attach a lot of importance to work compared to other life domains (Amatea et al. 1986). Furthermore, research shows that resources gained in one role (being a success at work) can directly increase the performance of other roles (being a success at home). To complicate things further, Carlson et al. (2006) also describe WLB as an 'orthogonal construct' where someone can simultaneously experience both positive and negative effects. However, most WLB studies typically report one or the other. For example, a construction project manager may suffer high levels of stress and long work hours but also experience high levels of financial security and personal growth. However, the positive impacts of work, in particular, are generally under-reported in the current WLB literature and that relating to a 5-day working week or working shorter hours in general (see Chapters 4 and 6).

Notably, while nearly a quarter of working Australians say they work more than 50 hours per week, research indicates that only around half say they would like to work less (Fabian and Breunig 2019). As Fabian and Breunig (2019) noted, there is no doubt that many people feel trapped in jobs that require excessive hours from which they cannot escape. However, drawing on Australian Household Labour and Income Dynamics data (HILDA), they argue that overall job satisfaction among these 'over-workers' is quite high, at an average of 7.1 out of 10, which is only slightly less than the score of 7.9 for workers in similar or identical jobs, who do not feel over-worked. This is because their long hours of work are compensated by higher pay, better job security, and more interesting work, which are also found in the results of our research (see results section). Fabian and Breunig (2019) found that satisfaction with these metrics is on par with that of workers with a better WLB (matched workers) and often exceeds them. Furthermore, over-workers' job satisfaction tends to improve over time because their high value to an organisation (in organisational commitment) increases their bargaining power and ability to switch to better jobs or negotiate with their employers for fewer work hours or better pay or conditions. Fabian and Breunig (2019) found that 'trapped' over-workers with no other option but to work long hours are extremely rare. They tend to lack formal qualifications and are mainly found in the hospitality, retail, service, agricultural and road and rail industries. In contrast, most construction workers earn relatively high incomes relative to other industries for their qualifications and often have numerous options to change jobs if they are unhappy in work (although this can change with economic conditions).

Importantly, in the context of recommendations to mandate a 5-day working week in the Australian construction industry, Fabian and Breunig's (2019) analysis shows that intervening in labour markets to reduce working hours could have significant negative economic effects because people typically resolve concerns about working hours by themselves and this is usually to their satisfaction. Fabian and Breunig (2019) argue that it would be far more effective to tackle over-working by addressing workplace cultural issues such as presenteeism, which are widely reported in the construction industry (see Chapters 4 and 6) than by doing anything to impede the workings of the labour market by mandating a 5-day working week. In other words, their analysis concludes that Australia's labour market works well in allowing people to achieve WLB in a way which matters to them. Therefore, ironically, according to Fabian and Breunig's (2019) analysis, the work being done to change the culture of the Australian construction industry by the Construction Industry Culture Taskforce (CICT) could be potentially undermined by the imposition of a 5-day working week by limiting their choice of how and when to work in the labour markets and by forcing them to work less when they may not choose to. This could also have significant wider economic effects.

2.9 The unique nature of WLB in the building and construction industry

In considering the potential impacts of a 5-day week on WLB, it is also important to consider the unique characteristics of construction work compared to other sectors.

The unique characteristics of construction that influence the impact of a 5-day week on WLB include:

- The highly cyclical boom-and-bust nature of the construction market may often mean that people choose to work long hours for short periods when work is available to compensate for periods of market downturn when work is not so plentiful.
- Many jobs in the construction industry involve heavy work or work that is exposed to the elements, like bricklaying, steel fixing, demolition and concrete work. Unlike office workers, people in these trades have a limited work life and are conscious that they need to work hard and long hours when they are fit and able.
- Construction is a project-based industry, and each project is a temporary organisational entity and a
 cost centre that works under its own set of time, cost, and resource constraints. This, in turn, determines
 peoples' WLB and the ability to implement initiatives without adversely impacting project deliverables.
- Teamwork is very strong in the industry, and there are many pressures and loyalties to teams and coworkers to do whatever it takes to get a job done and not let down your colleagues and project.
- Human resource management decisions (especially in small firms) are typically devolved to a Project Manager who has enormous power and influence over the site culture and attitudes towards corporate social responsibility initiatives such as WLB. While centralised head office human resource managers may champion WLB initiatives, Project Managers work under very different (often incompatible) constraints and goals. Project Managers can, therefore, be unsympathetic towards WLB initiatives or simply unaware of their importance because of the lack of attention to this area during their formal education (Dainty and Loosemore, 2013; Lingard et al., 2021).
- The subcontracted nature of construction work and the fragmented structure of the industry means that there is a larger proportion of small independent contractors than in any other industry sector in Australia. In August 2022, construction had the highest percentage of independent contractors (25%) of any industry (ABS 2022), which means that the effective implementation of WLB initiatives such as a 5-day working week requires the cooperation of a multitude of small organisations, which typically accept the bulk of project risk and may be disinclined to participate due to resourcing constraints or resistance from waged workers whose wages may be cut as a result of losing weekend overtime.

2.10 The role of construction industry clients in WLB

It is well documented that construction clients are critical in determining WLB in the industry. A large number of studies in construction, both internationally and in Australia, point to the damaging impacts on workers' WLB and well-being of excessive pressures imposed on workers and managers (especially in site-based roles) from increasingly demanding project programs and budgets imposed by clients (Yip and Rowlinson 2009, Love et al. 2010, Lingard et al. 2010, 2015, Crook and Tessler 2021, Australian Constructors Association 2022). Coupled with unbalanced (and many would say unfair risk distributions), which are ultimately passed down the contractual chain to small subcontractors who do most of the work on sites, untenable pressures are often put on already minimal margins and, in turn, the people who work in those organisations. These pressures are exacerbated when things go wrong (as they inevitably do on many projects) because of the way risks for delays are passed to contractors (and, in turn subcontractors) and underpinned by often penalistic liquidated damages. In order to avoid crippling losses, people working on these projects pay the price by

being required to work even longer hours and more days to get the job finished on time. Research shows that these pressures affect site-based employees more adversely than office-based employees (Lingard and Francis 2009, Lingard et al. 2021).

The important role of clients in determining WLB was vividly illustrated in the recent Project-5 report, where a progressive and supportive government client was willing to share the risk of experimenting with a compressed 5-day week with the contractor and employees working on the project (Galea et al. 2021). Health Infrastructure NSW paid approximately 1% of the project's total value and received a project 7 weeks later than a theoretical six-day week program. Roberts Co. paid for the cost of the other interventions (such as well-being training for workers, well-being leave, improved amenities, redistribution of risk in the contract with subcontractors and investment in smartphone technology). Waged workers reduced their income from overtime, although they may have benefited in other ways (see later critique of this study). However, as discussed in our results chapter, many smaller firms and clients in the construction industry may not be willing or able to make the accommodations described in the Project-5 report (especially private clients) as costs and other pressures escalate in the future. Given a widespread emphasis on lowest price tenders and fixed price contracts in both government and private sector organisations (Loosemore and Richard 2015, Australian Constructors Association 2023), many clients are unlikely to care whether the industry works a 6-day or 5-day week unless it costs them more or takes longer (when any support may quickly fall away).

3. WHAT IS DRIVING THE WLB DEBATE?

This section describes the historical and contemporary drivers of the WLB debate within and outside the construction industry. It discusses how key changes in technology and societal expectations have altered what we consider to be a healthy WLB and the key role that the Australian construction industry has played in advancing this debate.

3.1 The construction industry has been a key driver of the WLB debate

The concept of WLB may be relatively new to many in the construction industry who have become accustomed to its relatively long work hours compared to other sectors (Crook and Tessler 2021). However, the debate about reasonable working hours and work-time reduction has a long history, and it is one in which the Australian construction industry has played a key part.

Franklin (2010) credits much of the success in reducing working hours in Australia to the activism of the Australian Stonemasons Union (the Operative Masons' Society) which began campaigning for an 8-hour day during the nineteenth century using three main arguments:

- 1. Australia's harsh climate demanded reduced hours:
- 2. Labourers needed time to develop their 'social and moral condition' through education;
- 3. Workers would be better fathers, husbands and citizens if they were allowed adequate leisure time.

In March 1856, stonemasons working at Melbourne University walked off the job demanding an eight-hour day under the mantra of "Eight hours to work, Eight hours to play, Eight hours to sleep, Eight bob a day. A fair day's work, For a fair day's pay."

Winning their battle in 1885 on two Sydney construction sites, Australian stonemasons were among the first in the world to achieve an 8-hour working day without loss of pay. However, an 8-hour day was not standardised in Australia until 1916 when the Eight Hours Act was passed in Victoria and NSW. It then took until 1948 for the Commonwealth Arbitration Court to approve a 40-hour, five-day working week for all Australians.

In December 1981, a union campaign led to metal workers winning a 38-hour working week, laying the foundations for the standard five-day 38-hour week set by the Federal Conciliation and Arbitration Commission in 1983 that still applies in Australia today. This is enshrined in the National Employment Standards (NES) under the Fair Work Act (2009) which sets eleven legislated minimum standards for maximum working hours, flexible working arrangement, leave entitlements, termination, redundancy and causal employment which apply to all employees covered by the national workplace relations system, regardless of any award, agreement or contract. In simple terms, the NES and Fair Work Act 2009 entitle a full-time employee to refuse to work more than 38 hours a week unless the additional hours are reasonable (as determined by a range of factors that account for an employee's personal circumstances, such as family responsibilities).

The construction industry has also played a key part in the WLB debate in other countries. For example, Nocks (2021) attributes the philosophical foundations of the modern WLB debate to Lillian Moller Gilbreth who ran a successful construction company in the US in the early twentieth century which patented many technical innovations such as the adjustable bricklayer's scaffold. Gilbreth, a mother of thirteen children, was described in the 1940s as "a genius in the art of living" (Kennedy 2008) and was the first woman elected to the US National Academy of Engineering. While her work is often associated with scientific management techniques like time-and-motion study, Gilbreth recognised the importance of managing the psychological and emotional aspects of work and was a strong supporter of WLB and workforce equity and diversity, especially for women and people with a disability.

Gilbreth's ideas inspired companies like Ford to adopt a 5-day 40-hour week in 1920, increasing productivity and profits based on research which showed that working more hours yielded only a small and brief increase in productivity that rarely lasted. Kellogg's factories also introduced a 6-hour day in the 1930s which apparently reduced accidents by 41 per cent.

Around the same time, John Maynard Keynes famously predicted that by the beginning of the twenty-first century, technological advances would reduce the working week to 15 hours and give us more time for family and leisure. Although productivity and wealth creation increased with the arrival of new technologies, corresponding improvements in many workers' WLB have not occurred. As discussed below, the passing of time has seen workers in the construction industry work some of the longest hours of any sector. For many

commentators and researchers, the construction industry has lost its credibility, voice and leadership role in contemporary WLB debates. It is now seen as a bastion of outdated work practices, characterised by unhealthy working hours and conditions imposed by 'greedy organisations' which steal people's lives (Galea et al. 2021a, Crook and Tessler 2021, Tijani et al. 2022).

3.2 Drivers of the current WLB debate

The current WLB debate and the associated discussions about flexible working arrangements, reduced work hours and a shorter working week are being driven by a number of key trends within the construction industry and in society in general.

To have an informed view of the potential impact of a 5-day week on WLB in the construction industry, it is essential to understand these drivers, which are discussed in more detail below.

3.2.1 The impact of long work hours on mental health and well-being

One of the main factors driving the current WLB debate is the increasing body of research into the relationship between long working hours and increasing levels of workplace stress, burnout, and poor mental health. For example, Wong et al.'s (2019) meta-analysis of 243 published studies into long working hours and their effect on health conditions report a direct link to increased risks of cardiovascular diseases, chronic fatigue, stress, depression, anxiety, sleep quality, mortality; alcohol use and smoking; self-perceived health; mental health; hypertension; myocardial infarction; and poor physical health and injuries. This is supported by the World Health Organization (2021) and by subsequent international research about the potential impacts of long work hours (daily and weekly) on the risk of accidents at work, work-life balance, physical and mental health and well-being, happiness, life satisfaction, family and social relationships, economic well-being and various organisational outcomes (Lombardi et al. 2010, Badri et al. 2022, Karhula et al. 2020, Campbell et al. 2020, Lefrançois and Trottier 2022). A recent report in the UK by O'Halloran and Thomas (2024), which argued for a policy re-orientation towards a 'health-led economy' presents compelling evidence that growing presenteeism in organisations across the UK economy is a far greater threat to national health, productivity and prosperity than growing absenteeism. This especially adversely impacts already marginalised and disadvantaged groups such as those from low education, low skills and ethnic minority backgrounds.

The evidence indicates that WLB is more of an aspiration than a reality for many Australians and that high levels of unpaid overtime are common in many Australian workplaces (Australian Bureau of Statistics 2019, Johnson 2015, Australian Bureau of Statistics 2019, the Economist 2020, Standing Committee on Economy and Gender and Economic Equality 2020). Collectively, the above research shows a significant increase since the 1980s in the number of workers reporting that they feel overworked and suffer 'time poverty' (defined as the chronic feeling of having too many things to do and not enough time to do them), with over 30% of workers wanting to work fewer hours than they currently do. Unpaid overtime has also been increasing, and it is being made worse by digital technologies, which constantly connect people to work and allow uncontrolled hybrid or remote working practices. It has been estimated that the average Australian worker works about six weeks unpaid overtime per year (averaging about \$8,000 per worker), which equates to about \$92 billion in lost income per year, roughly the same as the Commonwealth's annual expenditure on healthcare (Littleton 2022).

Ironically, as a sign of structural problems and increasing labour market segmentation in the Australian economy, this increased unpaid overtime among the Australian workforce occurs concurrently with high under-employment levels (Giurge et al. 2020). The McKinsey Health Institute (2022) report shows that the COVID-19 pandemic has exacerbated these problems. Many companies have responded by investing more in mental health and well-being programs (it is estimated that nine in ten organisations worldwide offer some form of wellness program). However, the McKinsey study reported an average 22 per cent gap between employer and employee perceptions of employee wellbeing, with leaders consistently rating all aspects of wellbeing more favourably than their employees. The study also showed that the most frequently cited reasons for increasing time poverty, unpaid overtime and poor employee well-being (such as unreasonable workloads, long hours of work and constant availability) are not addressed by most wellness programs but require systemic solutions, including organisational-level interventions. The term 'wellbeing washing' is increasingly used to refer to employers who take a tokenistic approach to well-being, such as offering free yoga classes, resilience training or mental health awareness days while insisting that people work unhealthy work hours (Armstrong 2023).

3.2.1.1 What do we mean by healthy working hours?

Research shows that work is good for our mental health. However, this is only true up to a point and the exact threshold at which hours of work become bad for WLB and an individual's health and well-being is a vexing issue and varies significantly from person to person (Australian Productivity Commission 2019). For example, according to the World Health Organization and International Labour Organization (2021), working 55 or more hours a week raises the risk of stroke by 35 per cent and ischemic heart disease by 17 per cent when compared to working shorter hours. However, as Lingard et al. (2021) note, international definitions of safe working hours were set when the labour market was almost entirely male. Although the labour market has changed considerably in its gender representation, no nation has yet defined a safe work hour standard that includes the extra time (double shift) that many women have to work to cover caring responsibilities on top of standard working hours.

Nevertheless, research within and outside the construction industry shows that healthy work hours vary between 39 to 50 hrs a week depending on a variety of factors such as the type of job, fluctuations in workloads over time, role salience (value that people attach to work), work tempo, work control and the need to balance many potential non-work domains such as study and family and caring, sport and recreational commitments, healthcare, community and voluntary commitments etc. (Amatea et al. 1986, Lingard and Francis 2009, Brauner et al. 2019, Lingard et al. 2021, Loosemore et al. 2020). Longitudinal medical research in Australia based on 91,000 observations from 18,420 people showed that when people work 49–59 hours per week and 60 hours or more per week, they tend to have worse mental health than when they are working 35-40 hours/week (Milner et al. 2015). Dinh et al. (2017) analysed six years of nationally representative data from Australia to quantify the threshold beyond which an extra hour of work negatively impacts workers' mental health. Considering a range of factors such as income, employment status, level of autonomy at work and work intensity, the study produced a number of estimations of this threshold. These tipping points exist well below the regulatory standard of 48 hours per week and include 39 hours per week for all workers, 35 hours per week for all workers who carry out high (28 hours or more) levels of unpaid labour, and 31 hours per week for all female workers who carry out high (28 hours or more) levels of unpaid labour. Tucker and Folkard (2012) report that after working 40 hours or more per week, both sleep problems and health risks increase in a roughly linear manner, and it is recommended that workers not work more than 48 hours in any single week. More recently, evidence presented to the Australian Senate Work and Care Committee Final Report (Commonwealth of Australia 2023) suggested that this point is a limit of 39 hours a week. However, it also notes that the work-hour-mental health threshold is around 34 hours for women who live in domestic households, given the additional unpaid care and domestic responsibilities they often undertake. In contrast, while men increasingly share the burden of domestic duties, the report argues that men can work up to an average of 47 hours a week before their mental health is risked because of the relatively little time devoted to unpaid care.

Kodz et al. (2002a) undertook one of the most comprehensive analyses of working time patterns based on case studies and a secondary analysis of past research in the UK, EU and other developed countries (including Australia). Recognising the complexity, context-dependent and subjectivity of what constitutes long work hours, Kodz et al. (2002) argued that what constitutes long hours is very much open to debate since it varies from person to person and sometimes depends upon the norm for a particular type of work. They also highlighted numerous methodological challenges for researchers in assessing whether people work long hours. These challenges include distinctions between 'extensive' work (long hours) and 'intensive work' (working harder and faster), where they suggest that workers working more intensively (as many do in construction) may be inclined to report suffering from 'long hours', merely because they are more tired. Kodz et al. (2002) also found that men (especially with children and between 30-49) were significantly more likely to work long hours than women (not taking into account housework) and that the construction industry was one of the main sectors with a particularly high incidence of long hours. Kodz et al. (2002) also argued that researchers should include travel time in calculations of hours worked and that following a period of a long-term decline in working hours, the proportion of employees working long hours was increasing across many countries. Importantly, they also found that the risks of working long hours were increasingly polarised among certain workforce groups due to the increased use of paid and unpaid overtime. They argue that while managers and professional staff typically do not get paid for overtime (unlike trade and manual workers), they often choose to work long hours due to occupational commitment and career enhancement and in anticipation of higher earnings in the long term. However, they also note that increasing numbers of people feel compelled to work long hours due to structural changes in organisations (such as casualisation and project-based working). These organisational cultures reward presenteeism and long hours and developments in ICTs, which make people constantly available for work.

While the current WLB debate in the Australian construction industry and many other industries is focused on the potentially damaging impacts of regular long work hours, a shorter working week does not necessarily improve WLB or a person's health and well-being. For example, Tucker and Folkard (2012) show that working

less than 30 hrs per week does not seem to produce health benefits and workers on short working weeks can be subject to significantly higher safety risks. This can be a significant concern in many industries, including construction, due to the high incidence of sham contracting, labour hire practices, casualisation and insecure work (CFMEU 2015, Parliament of Australia 2021, Hewett 2022, International Labour Organization 2023). Short working hours are classed as anything less than 35 hours of work per week, and very short hours less than 15 or 20 hours of work per week. The International Labour Organization (2023) estimates that about one-fifth of global employment (20.3 per cent) involves short hours of work of fewer than 35 hours per week, and women are nearly twice as likely (27.8 per cent) as men (15.4 per cent) to have short hours of work across the world (the reverse of the difference for long hours of work).

The ILO notes that the negative WLB effects of short hours of work arise from three different factors:

- The extent to which working shorter hours resolves work-life conflict issues which is not always the case.
- The extent to which shorter working hours are compatible with personal commitments.
- The extent to which low hours is an entirely voluntary choice on the part of the worker or under their control. Having control over one's work schedule is very important for WLB.

3.2.1.2 How many hours do people actually work?

Recent evidence published in the Australian Senate Work and Care Committee Final Report (Commonwealth of Australia 2023) notes that 40 per cent of the Australian labour market 'routinely' works more than 38 hours a week (the majority being men), with around 10% of men working more than 50 hours per week. The report also notes a direct correlation between long working hours and high-paying, high-status management full-time jobs, which tend to be occupied by men. While this may seem to disadvantage men, it is also not good for women because promotions, pay, and pensions are often based on a capacity to work those hours. This creates an unhealthy, sub-optimal and polarised labour market where men typically work in long-hour, full time and highly-paid jobs, and women typically work in short-hour, part-time and relatively low-paid jobs.

While the National Employment Standards set a maximum weekly national standard of 38 hours per week, there appears to be a widespread lack of adherence to this limit across much of the Australian workforce. Those who work in the construction industry suffer more than most, with research showing that a culture of long work hours and weeks, typified by a 6-day working week, has been a perennial problem for many decades in some parts of the industry, especially for those working on larger major construction and infrastructure projects – which is where the vast majority of existing albeit limited research data exists (see Chapters 4 and 6). Crook and Tessler (2021) show that the Australian construction sector had the third-highest average hours worked per employee in 2018, at 40.5 hours per week. Furthermore, 23% of construction employees were reported to regularly work more than 50 hours per week, with almost 40,000 construction employees regularly averaging more than 76 hours per week. Crook and Tessler (2021) show that long hours have been a consistent feature of the construction industry for over 25 years in contrast to other sectors of the Australian economy, which have reduced average hours worked due to the higher adoption of time-saving technologies and flexible work practices.

In at least the short-to-medium term, long hours of work in the construction sector will likely worsen. According to Infrastructure Australia's recent Market Capacity Reports (2022, 2023), due to little growth in VET and university education and capacity constraints in adjacent workforces with transferable skills (such as mining), a severe labour shortage across the construction industry will continue to undermine its ability to deliver on time and budget, the planned \$230 billion of infrastructure projects over the next 5 years. According to Infrastructure Australia, existing vacancies are not being filled, and existing workers are already working as many hours as they can. The inevitable impact of this on the existing workforce will be even more pressure to work longer hours and working weeks. This also raises legitimate questions about the potential negative implications of recent calls to move to a 5-day week at a time when the labour shortages are already undermining the construction industry's ability to deliver on future and current construction and infrastructure projects, many of which are already running over time and budget. Proponents argue that such initiatives do not reduce productivity and could potentially increase it (Galea et al. 2021, WGEA Data Explore 2022, Standing Committee on Economy and Gender and Economic Equality 2020, Schor et al. 2022, Lewis et al. 2023). Furthermore, it is claimed that such measures can help to address critical skills shortages by encouraging more women into an industry which is seen as being well behind other non-construction sectors in terms of female representation (Infrastructure Australia 2021, 2022, Construction Industry Culture Taskforce 2021, Australian Constructors Association 2022). However, as discussed in later sections of this report, such claims are widely contested because empirical research into the relationship between shorter working weeks, gender diversity and productivity is open to question and far from conclusive.

3.2.2 Gender equality and changing workforce demographics

The WLB and shorter working week debates are also being driven by a range of gender-related challenges and demographic changes in the workforce (see Kodz et al. 2002, Standing Committee on Economy and Gender and Economic Equality 2020, Gregnano et al. 2020, Tijani et al. 2020, International Labour Organization 2022, Commonwealth of Australia 2023).

Gender-related issues driving the shorter working week:

- The need to increase female participation in the workforce;
- The decline of the 'male breadwinner model' and development of the 'dual-earner model' which has led
 to increasing numbers of women entering the labour market;
- More flexible working arrangements which allow women to balance traditional caring responsibilities and work;
- A growing service economy and a decline in traditional male-dominated heavy manufacturing jobs;
- Social pressures for greater gender equality in work;
- Higher qualification levels among women;
- Later marriage and childbirth and a quicker return to work after childbirth;
- An increasing proportion of single parents, particularly mothers;
- A growth in men sharing domestic and caring responsibilities.

While many of these changes are positive, they have also introduced new WLB challenges for women wanting to fully participate in the labour market on equal terms. According to the Standing Committee on Economy and Gender and Economic Equality (2020), most of the unpaid domestic and care work in Australia is still done by women, who are four times more likely than men to give up paid work or take on part-time work to do unpaid care work. Those women who want to take advantage of new opportunities to participate fully in the workforce now face a 'double shift' (a first shift of paid labour and a second shift of unpaid labour performed in the home).

The changing role of men in society is also a concern. As Raiden and Räisänen (2013: 908) note in their research into work-family-life balance in the Swedish and UK construction industries, "most of work-life balance research is grounded on the traditional view of work-life balance as a female-oriented entitlement. So far, little attention has been paid to how men balance their work-life situations, especially the 'new men' who are keen to share the family care". Gregnano et al. (2020) also caution that most WLB research overplays the role of the family domain and ignores changes away from the traditional nuclear family model and the increasing importance given by people to other no-work domains such as education, health, leisure, friendships, romantic relationships, and community involvement.

3.2.2.1 Gender segregation remains high – especially in the construction industry

A recent report by the Committee for Economic Development of Australia (CEDA) (2023) found that occupational gender segregation (where a job is done by either mostly male or female workers) remains at a high level in Australia despite the growing proportion of women in the workforce from under 45% in 1980 to well over 60% in 2022. Notably, CEDA (2023) classifies construction as the most gender-segregated industry in Australia, with three out of the top five most segregated professions being electricians, carpenters/joiners and construction managers, with the latter going backwards since 1986/87 and the overall level of female representation falling from 13.8% in 1998, to 12% in 2018 and 10% in 2021. The CEDA (2023) report finds that one significant factor which drives gender segregation is the lack of access to flexible work practices and an adherence to rigid workplace cultures that insist on fixed hours, locations and restricted modes of attendance.

Data from the Workplace Gender Equality Agency (December 2023) indicates that while female representation in the construction workforce has increased from 12.3% in 2016 to 26.1% in 2023, the gender pay gap remains high, with a disproportionate number of men in high-paying roles (upper quartile 11.5% v lower quartile 46.7%). A greater proportion of women than men also occupy part-time (22% v 2%) and casual (22% v 19%) roles. Construction remains the second most male-dominated industry in Australia. It has the highest gender pay gap and one of the lowest levels of female representation in managerial roles, and women continue to leave the industry at a far higher rate than their male counterparts. A recent survey of 130 females across a range of roles working in the residential, commercial, industrial, and infrastructure construction industry by the Australian Sustainable Built Environment Council (2023) found that while overall participation rates were well above the national average of 12%, it was as low as 5% in 28% of organisations. Only 10% had achieved gender parity in executive and leadership roles, and 20% had no women on their

boards. These statistics vary from state to state. For example, according to data from the Australian Bureau of Statistics (ABS 2023), women represent 50.6% of the NSW population, yet they account for only 13% of the state's overall construction workforce. Furthermore, a recent report by the Building Commission NSW (2024) reported that the under-representation of women in small and medium-sized enterprises (SMEs) is particularly pronounced, with 46% of medium and large construction companies employing less than 5% women and 35% having no female employees at all. To help address this intransigent problem, a key part of the FY22-23 NSW Government budget was an investment of \$20.2 million over three years to achieve a goal of women occupying 15 per cent of trade and non-traditional roles by 2030. Driven by the NSW Government's Women in Construction Industry Innovation Program (IIP), a key part of this strategy is supporting initiatives that create inclusive workplace cultures, including improving employee wellbeing and supporting flexible working arrangements.

Gender segregation is a major problem for women in the Australian construction industry. The CEDA (2023) report finds that gender segregation limits job mobility, labour-market flexibility and productivity. The combined impact of these limitations is that women's wages fall on average (across all industries) by about 55% over the first five years of parenting compared to 0% for men and that a large proportion of women leave or consider leaving their jobs.

3.2.2.2 Will better WLB attract more women into construction?

It is not all bad news for women working in the Australian construction industry. For example, George and Loosemore (2019) found evidence that attitudes towards masculinity in the construction industry may be shifting to reflect trends in the wider population and may be more inclusive and less hegemonic than previously argued. Recent research by the Australian Sustainable Built Environment Council (2023) also found that 80% of women like or love working in the construction industry. In a recent survey of women managers, nonmanagers and professionals in the Australian construction industry, Baker et al. (2023) found that the main factors that attract women to construction (in priority order) are career opportunities, salaries/ wages and family connections. This confirms the findings of the Australian Sustainable Built Environment Council (2023), which found that many women like working in construction because of an ability to make a big impact, working with great people, rewarding career opportunities, developing transferable skills, high levels of flexibility, good organisational cultures and working conditions and flexible working conditions. However, on the downside, research also shows that on top of wage disparities, as discussed above, many women in the construction industry experience a poor WLB because of difficulties in balancing work and family responsibilities, unequal treatment and opportunities for career progression and leadership roles; and high levels of sexual discrimination and harassment (Navarro-Astor et al. 2017, Kumar and Chaturvedi 2018, Lingard et al. 2021, Oo et al. 2022, Galea et al. 2020, 2022, CEDA 2023). These issues can lead them to leave the industry at a far higher rate than men. However, it is noted that the Australian Sustainable Built Environment Council (2023) found that only 4% of 130 women surveyed from across the industry are actively looking to leave. It would, therefore, appear that anything that improves WLB would help improve the retention of women in the construction industry.

However, this assumption is somewhat qualified by Baker et al. 's (2023) findings that the main factors that attract women to construction (in priority order) are career opportunities, salaries/wages and family connections. These may override the downsides of any WLB deficiencies. Furthermore, Lefrançois and Trottier's (2022) analysis of work-family conflict (WFC) in the Canadian construction industry found that although work conditions in the construction industry are a stronger determinant of WFC for married women than it was for married men (because of their primary caring/family responsibilities), men were at greater risk of long working hours because they tend to work longer to increase their income as the main bread earner. Furthermore, their dependence on their spouses to help manage family matters and their masculine working norms (self-sacrifice, suck it up, don't moan etc.) suppressed their need to discuss and manage WFC risks associated with such long hours. A surprising finding was that WFC influenced men's intention to leave the industry (especially young men) and women's intention to stay. Lefrançois and Trottier (2022) speculated that this may be due to the relatively high difficulties women encounter when entering and progressing within a male-dominated industry, which means they are more inclined to persevere in the face of WFC than men. They may also have fewer options to move. The results also note that women reported receiving more management support to manage their WFC than men. This brings women other benefits, such as access to greater work flexibility, which is another factor preventing them from leaving the industry. Other recent research in Canada undertaken by Galardo and Trottier (2022) reported the importance of spousal support and social support in moderating levels of WFC. Men reported receiving more spousal support than women, and women reported receiving more supervisory social support than men. This difference may be explained by the influence of masculine norms requiring men to hide and internalize any WFC concerns to avoid being seen as weak.

Overall, research indicates that both men and women would benefit from improved WLB in the construction industry. Men and women suffer poor WLB but in different ways. However, the jury is still out on whether a better WLB would attract and retain more women in the construction industry.

3.2.3 Structural imbalances in employment and the rise of insecure work

While overwork among the employed can cause poor WLB, there is significant evidence that underemployment, part-time and insecure work can also significantly impact a person's WLB – negatively affecting health and well-being, income security, housing security, diet, regular exercise, sleep patterns, caring for family, establishing new relationships and maintaining existing ones (Nica et al. 2016). Job insecurity is a long-recognised feature of the construction industry. There is significant evidence that labour hire, labour exploitation and sham contracting are rife and that the dominant subcontracting model of production has created a highly fragmented industry characterised by the highest levels of independent contracting of any sector in Australia (Yip and Rowlinson 2009, Crook and Tessler 2021, Vogel 2016, Australian Council of Trade Unions 2021, CFMEU 2011, Commonwealth of Australia 2022). These workforce characteristics reflect wider changes in the nature of work across the Australian economy as a whole. According to The Senate Select Committee report on Job Security (Commonwealth of Australia 2022), insecure (or precarious) work has become prevalent in many countries, including Australia. This has been linked to the widespread growth of various forms of non-standard employment, such as part-time work, indirect employment, outsourcing, labour hire, on-demand platform work, and zero-hours contracts.

Ironically, according to the Standing Committee on Economy and Gender and Economic Equality (2020), these shifts towards more insecure work are occurring at the same time as a high incidence of over-work among some groups, highlighting significant structural imbalances in the Australian economy. Addressing this problem was a core objective of the Australian Jobs and Skills Summit in September 2022 and the subsequent Fair Work Legislation Amendment (Secure Jobs, Better Pay) Bill 2022. This sought to increase work security by strengthening the rights of casual and part-time workers, limiting the number of fixed-term consecutive contracts and strengthening the negotiating position of people who need work flexibility, such as older workers, working parents, people with a disability, and women suffering domestic violence.

It has been argued that moving to a shorter working week could help address these structural problems. Advocates argue that people who reduce their work hours create more secure and better-paid opportunities for those who want more work (under-employed or unemployed or in insecure jobs), leading to a rise in overall productivity and employment across the economy (Standing Committee on Economy and Gender and Economic Equality 2020). However, there is no clear evidence of this and if people are paid the same for a shorter working week to produce the same amount of output, which is the current model being proposed (see later sections) and if construction clients do not adjust their programs and budgets to suit (which is unlikely – see results) then there will be no extra money in the industry to employ these extra people who are currently under-employed.

3.2.4 Digitisation, automation and information and communication technologies (ICTs)

Advancements in automation, digital, artificial intelligence, cloud computing, internet and ICTs are transforming the relationships between work and life, making it easier for people to decouple work location from work activity. As the World Economic Forum (2020) Future of Work report noted, eighty-four per cent of employers worldwide are set to rapidly digitalize working processes, enabling a significant expansion of remote workwith the potential to move 44% of their workforce to operate remotely. While Australia lags behind many other countries in its adoption of these new technologies (Productivity Commission 2022), technology is also predicted to have profound work implications for a large proportion of the Australian population, including many who work in the construction industry (CEDA 2015, 2022, Manyika et al. 2017, Standing Committee on Economy and Gender and Economic Equality 2020). CEDA's (2015) modelling predicts that almost five million Australian jobs (around 40 per cent of the workforce) face a high probability of being replaced by computers in the next 10 to 15 years. Technology and Artificial Intelligence (AI) are predicted to outperform people who work in many professional fields and trades, many of the most affected being linked to the construction industry, such as engineering, surveying, construction management, carpentry, electrical engineering, and civil engineering. This will likely lead to a fundamental reorganisation of the workplace, with a greater emphasis on interactive and cognitive skills and an equivalent reduction in demand for jobs characterised by routine cognitive or manual tasks concentrated at the bottom and middle of the skill distribution ladder.

Research indicates that women will be more adversely affected than men by these changes since they tend to perform more administrative roles, especially in male-dominated industries like construction (Francis 2017, Lu and Sexton 2010, Dainty et al., 2000). On the other hand, it is also argued that technological advances can

make many jobs more accessible to women due to the greater flexibility and automation of such technologies afford (Standing Committee on Economy and Gender and Economic Equality 2020).

So far, the construction industry's take-up of these technologies has been slow compared to other sectors for various structural, organisational, contractual, cultural and institutional reasons (see Loosemore 2014, Perera et al. 2021). However, it is predicted that technologies such as AI, data analytics, digital engineering, robotics, modularisation and offsite production will fundamentally disrupt the nature of employment within the industry in the future (McKinsey 2020). According to the Standing Committee on Economy and Gender and Economic Equality (2020), various factors will determine the impact of these technologies on construction workers' lives.

Factors that determine the take-up of technology in the construction industry include:

- The absorptive capacity of the industry;
- Government policy;
- The nature of a person's job;
- The size of the enterprise they work for and the level of wages in that sector;
- The cost of the technologies;
- Union resistance and the strength of employees' collective bargaining;
- State intervention and policy effectiveness because history shows that employers tend to use technology as a way to maximise profit and worker productivity without always sharing the benefits with employees.

Despite the constant promise that technology will enable more efficient, productive and safer work, which frees time for workers to have a better WLB, the reality has so far been very different. Technological advancements have not produced any significant productivity benefits and have resulted in workers (particularly professional workers) working longer hours (Standing Committee on Economy and Gender and Economic Equality 2020). Technology advances have increasingly blurred the boundaries between work and life, making employees constantly available and connected. They have also increased job insecurity by eliminating routinised jobs and creating hollowed-out firms of permanent casuals and freelancers working in the human cloud on zero-hours contracts. Technology has also increasingly intruded into our personal lives through remote monitoring of our movements and even our health, often without us knowing, raising increasing concerns in the community about what personal data is being collected and when and how this could be used against our interests in recruitment and career progression.

The impacts of technology on WLB are already evident in the 2022 HILDA (Household, Income and Labour Dynamics in Australia) survey. Wooden et al.'s (2022) analysis of the HILDA data shows that the proportion of Australians working "most hours" from home jumped from around 6% before the COVID pandemic to 21% in 2020 and that this shift is unlikely to reverse with unpublished data showing a further jump to 24% in 2021. This reflects research in other countries like the US, where about 30% of full-paid days are working from home (Bloom et al. 2023), and in the UK, where office workers are spending 59% of the time in their workplace compared with pre-COVID levels (Swinney et al. 2023). Wooden et al. (2022) show that working from home can have many benefits for workers, such as increased productivity and greater control of their time, but it can also damage WLB by increasing social isolation and lengthening working hours. The productivity impacts are also highly contested, with some studies finding positive, neutral and negative results (Bloom et al. 2003). Indeed, the HILDA survey found that the proportion of workers working from home who reported negative effects on their ability to do their job (42%) far outweighed the proportion who reported positive effects (24%).

Notably, Wooden et al.'s (2022) research on data from the HILDA shows a significant positive association between working from home and job satisfaction among women but not men. Furthermore, the improvement among women is concentrated on women with children – probably because they shoulder the bulk of home and care work. On the other hand, working from home can also be a longer-term trap for women since workers who are visibly present in a workplace are more likely to be given responsibilities that enhance their promotion prospects compared to those who are not.

3.2.5 Changing employee expectations about flexible working and WLB

The COVID pandemic has had a profound impact on employee attitudes towards WLB (The International Labour Organization 2022). As Morgan (2023) notes, since the COVID-19 pandemic in 2020, millions of workers around the world have left their jobs. While this 'Great Resignation' now seems to have subsided, it is notable that Morgan (2023) identifies the construction industry as one of three industries (healthcare, manufacturing, construction) where turnover and resignation rates remain above 2019 levels, as workers move to more desirable industries that provide a better WLB. Research in the construction industry supports

this trend. For example, Seneghi and Loosemore's (2012) research into employer-of-choice perceptions of university students entering the construction industry reported WLB-related factors as the most important factors when students select a potential employer. Pay ranked relatively low, and female students especially valued WLB factors.

As annual global research by The Society for Human Resource Management (2022) shows, since the COVID-19 pandemic, there has been a huge shift in preferences within the global workforce towards remote and hybrid working, with 63% of respondents indicating a preference towards some amount of remote work. In Australia, the COVID pandemic forced around 40% of workers to experiment with working from home compared to 8% before (Productivity Commission 2021). The COVID-19 economic crisis in Germany forced companies to experiment with new work-sharing/short-time work policies by reducing work hours instead of cutting jobs. For example, instead of laying off 20 per cent of the workforce, employers could reduce work hours for all workers by 20 per cent - from a five-day work week to a four-day work week (International Labour Organization 2022). In the UK, research by Walker and Fontinha (2022) found that 51% of workers supported a move to home-working, compared with 43% before the pandemic. The study found that a disdain for commuting was a key reason for choosing flexible working (62%), with 27% of employees saying they would be willing to take a pay cut to work from home. In the UK, employees now have the legal right to request flexible working from their first day in a new job. Campaign groups such as 'Timewise' and 'Pregnant then Screwed' in the UK argue that flexible working and diversity and inclusion are interwoven and that mothers are twice as likely as fathers to ask for flexible working after parental leave because they are more likely to shoulder ongoing caring responsibilities. However, just three in ten job adverts currently offer flexibility, limiting the progression opportunities and earning potential of mothers (PA Media 2024).

Von Seggern et al.'s (2021) survey of 16,264 employees in multiple roles working for major organisations across 16 countries and 23 industries reported that 90% of respondents want flexibility in where and when they work. On average, employees would want to work between two and three days remotely after the pandemic, with 67% believing their productivity can be accurately measured irrespective of location. Notably, 54% of employees would consider leaving their jobs if not afforded some form of flexibility in where and when they work (millennials are twice as likely to quit due to poor flexibility than baby boomers). They estimated that nearly half of all employees globally (47.1 per cent) have access to some form of flexible work schedules and that over 61% of enterprises globally offer such arrangements.

Advocates of more flexible working around the world argue that there is a substantial body of research to show that more flexibility leads to better WLB, which in turn leads to numerous benefits for both businesses and employees (see Knight et al. 2013, Fitzgerald et al. 2018, Fremstad et al. 2019, Standing Committee on Economy and Gender and Economic Equality 2020, Brough et al. 2020, Canadian Centre for Occupational Health and Safety 2022, WGEA 2022, Soga et al 2022, International Labour Organization 2023).

The potential benefits of flexible working include:

- Increased staff engagement;
- Increased satisfaction, well-being and happiness;
- Increased productivity;
- Increased attention to quality and safety;
- Increased collaboration and innovation
- Increased workforce diversity;
- An increased proportion of women in the workforce;
- Future-proofing the workplace;
- Increased recruitment and retention;
- Reduced energy cost and office rental reductions;
- Reduced traffic congestion and carbon emissions, etc.

However, the Society for Human Resource Management (2022) also acknowledges that we are still in the early stages of experimentation with different firms trying out different models (some of which will work and some will not). This emphasises the importance of continued learning and research in achieving improved WLB as firms and workers get better at finding a better balance in managing remote work. For example, digital support is crucial to enable hybrid working. Yet, only 53% of employees surveyed agreed that their organisation has taken sufficient steps to help them manage the stress of working remotely. Access to flexible working arrangements is a key requirement of the WGEA Employer of Choice for Gender Equality citation (Workplace Gender Equality Agency 2022). The WGEA Database of more than 4000 employers covering more than 4 million employees shows that 78.6% of organisations now have formal policies and strategies which support more flexible working (WGEA Data Explore, 2022).

These are discussed in more detail in section 4.1.1 and include:

- · Flexi-time;
- Job-sharing;
- Rostering;
- Family and parental leave;
- Paid Time Off (PTO) banks;
- Remote and teleworking working;
- Paid mental health leave that is separate from regular sick leave benefits;
- Reimbursement of at-home office equipment and office supplies;
- Dependent care flexible spending accounts;
- Family-friendly workplaces (e.g., childcare facilities which allow employees to bring their children to work);
- Time off in Lieu, etc.

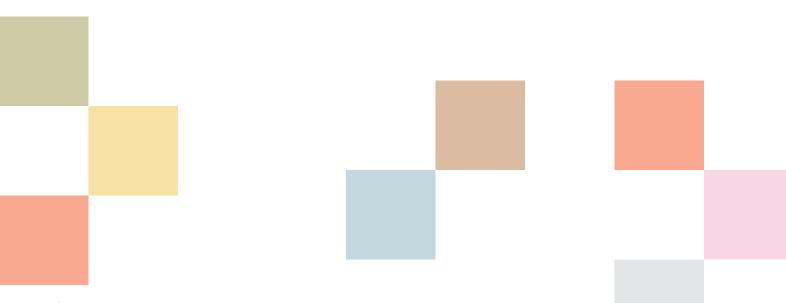
Neilson (2023) argues that to normalise flexible work for both men and women, organisations must integrate flexibility into their systems at a team level to allow teams to negotiate with individuals about arrangements that will suit everyone but also meet the needs of the team and the wider business and clients they work for. As we discuss in our results section, this is an important point given the project-based nature of the construction industry, where people are highly loyal to their project teams and where teamwork is particularly crucial to success.

3.2.5.1 What do people want to do with their extra time?

Walker and Fontinha (2022) reported that 67% and 66% of employees said they would use any extra flexible working provisions to spend more time with friends and family, respectively. More than half of respondents said they would like to take up a new hobby (51%), do more shopping (58%), and spend more time eating out at restaurants (48%), bringing a much-needed boost to their local economy. Volunteering also featured highly on many people's wish lists, with 36% saying they would like to take up more charity work in their free time. Interestingly, 32% of people said they would take on additional work on their day off to boost their income. A recent Diversity Council of Australia (2023) report showed that of 3000 people surveyed across a range of industries who had worked flexibly in the previous 12 months, 75% did so to manage caring responsibilities.

As noted earlier, caring responsibilities are often associated with women. While this suggests that WLB benefits women more than men, Neilson (2023) argues that there is a need to shift the narrative that flexible work is just for women. Research shows that men also want better access to flexible working arrangements. However, Neilson (2023) notes a 15 per cent gender gap in the uptake of flexible work between men (57%) and women (72%) and a greater degree of 'flexism' (discrimination and/or harassment for choosing to work flexibly) for men (37%) thank for women (24%)

Neilson (2023a) also notes that flexible working is good for accommodating an ageing workforce. Quoting the latest Intergenerational Report (2023), Neilson (2023a) notes that by the time Australia hits 40 million people, there will be twice as many people over 65 and three times as many people over 85 in the workforce. Since an ageing population is the biggest risk to improving Australia's declining productivity, Neilson (2023a) argues that a significant potential productivity dividend will be gained for Australia from more flexible working.



4. BALANCED WORKING TIME ARRANGEMENTS IN THE CONSTRUCTION INDUSTRY

This section explores the concept of balanced working time arrangements, which are designed to provide employees with greater choice over how, when, where and how long they work. It starts by introducing the concept of balanced working time and then discusses the WLB implications of various balanced working time arrangements which are being implemented within the construction industry.

4.1 Balanced working time arrangements

Balanced working time arrangements are defined as any work policies and practices designed to benefit the WLB of workers, taking into account the commercial imperatives and constraints of the organisations they work for (International Labour Organization 2019, 2022, 2023).

Balanced working time arrangements can broadly be classified into two categories according to how they allow people to adjust their working practices:

- The amount of time spent working (for example, the shorter working week)
- The organisation of working hours (for example, flexibility initiatives which influence people's control over when, where and how they work).

These are discussed in more detail below. However, it should be noted that research shows that balanced working time arrangements are best used in combination with other WLB initiatives (WLB education, mental and physical health support and mentoring etc.) to help people achieve optimum WLB.

4.2 The amount of time spent working

The concept of 'balanced working time' has a long history, which can be traced back to the International Labour Organization's (ILO's) very first international labour standard (The Hours of Work (Industry) Convention, 1919 - No. 1). This first enshrined the notion of a 'standard working week' as an international norm, which is an 8-hour workday and a maximum 48-hour week. This applies to any industrial undertaking operating within a United Nations member state, including those involved in: "construction, reconstruction, maintenance, repair, alteration, or demolition of any building, railway, tramway, harbour, dock, pier, canal, inland waterway, road, tunnel, bridge, viaduct, sewer, drain, well, telegraphic or telephonic installation, electrical undertaking, gas work, water work or other work of construction, as well as the preparation for or laying the foundations of any such work or structure" (Article 1c).

While the Convention permits some exceptions to this rule (for example, where urgent work needs to be done and by agreement between employers and employee representatives – see articles 2b, 2c, 3, 4 and 5), the International Labour Organization (2019) acknowledges that standard work hours still vary significantly around the world. For example, while Europe has broadly adopted the 48-hour week limit, the Americas, Caribbean, and Africa set their maximum weekly hours in the 49-59 hours range, and the Middle East, Asia, and the Pacific adopted 60 hours or more as the legislative norm for maximum total weekly working hours (including overtime). Nevertheless, the ILO continues to drive international standards on a variety of balanced working time-related subjects, including standards on flexible work, working time limits, overtime limits, daily and weekly rest periods, paid annual leave, protections for night workers, and the principle of equal treatment for part-time workers (International Labour Organization 2019, 2022). More recent ILO standards seek to address the impact of AI and other technologies on work and increasingly insecure work practices such as outsourcing, gig economy, casualisation, zero-hours contracts and result-based employment. These changes have created a "24-7" economy driven by working hours arrangements that are increasingly diverse, decentralized and individualized (International Labour Organization 2023).

The classical statistical indicator of working time is the average number of 'actual hours' of work per week per worker and annual hours worked. 'Actual hours' worked include regular work hours of full-time work, paid and unpaid overtime work and hours worked in additional jobs. This excludes time not worked because of public holidays, annual paid leave, own illness, injury and temporary disability, maternity leave, parental leave, etc.

Drawing on Australian Bureau of Statistics (ABS) data, the latest ILOSTAT data (2023) shows that the average number of actual hours worked per week in Australia in 2020 was 32.3 hours, with 12.9% of people working 49 hours a week or more. This compares to an average of 40.5 hours per week in the construction industry, with 23% of employees regularly working more than 50 hours per week and almost 40,000 construction

employees regularly average more than 76 hours per week (Crook and Tessler 2021). Our research findings are even more concerning and show that people in the NSW B&C industry work an average of 50-55 hours a week and that 46.3% work over 50 hours a week. This is mirrored in many other countries. For example, in the UK construction industry, just 14% of construction workers work fewer than 40 hours a week, with 13% reporting that they work over 60 hours, which is more than 5 hours more per week than the average worker in Britain (Hertzog-Young 2021).

Despite natural variations in the hours that people work around the world, Messenger (2018) notes that there are some general international patterns relating to hours of work that are held across different countries. For example, it is generally the case that self-employed people work significantly longer hours than employed people and that men tend to work longer hours than women. However, this gender difference in paid working hours does not reflect the substantially greater amount of time that many women must devote to unpaid household tasks and care work compared to men (the double shift). According to the Workplace Gender Equality Agency (2016), women spend 64.4% of their average weekly time on unpaid care work compared to 36.1% for men (a significant contribution to the economy, which is not included in the calculation of the national GDP). Messenger (2018) notes that this time inequality between men and women means that many women cannot sustain a full-time job, are more likely to earn less than men, and tend to accumulate less superannuation. This, in turn, hinders women's relative career progression and facilitates further gender disparities in the workplace. It also greatly hinders the Australian economy. For example, the Department of Prime Minister and Cabinet (2023) estimated that if women's workforce participation matched men's, Australia's GDP would increase by \$30.7 billion, or 8.7 per cent, to \$353 billion by 2050 and create an additional 1 million full-time equivalent workers with post-school qualifications.

4.2.1 The shorter working week

A growing body of research is questioning the merits of the standard 48-hour, 5-day working week, which has been dominant since the International Labour Organization's 'Hours of Work (Industry) Convention, 1919 - No. 1. Advocates of the shorter working week (which in most industries takes the form of a 4-day week) argue that the continually growing pressures on workers in recent decades to work harder and faster and for longer hours (often for the same pay) are not fair or sustainable. Furthermore, they claim that there appears to be no direct link between the number of hours worked in a particular country and the strength of its economy. For example, data produced by The Organisation for Economic Co-operation and Development (2023) and International Labour Organization (2023) data consistently shows that countries working fewer hours tend to have higher levels of GDP per person and that worker productivity relies not just on the sheer number of hours worked, but on the overall health and well-being of workers which is affected by their WLB. For example, Mexico is among the least productive of OECD countries. However, it has the longest average work week while countries like Luxembourg, the most productive country, have among the lowest average workweek hours (OECD.Stat data 2023, 2023a, Johnson 2017). Advocates of a shorter working week like Stronge and Harper (2019), Schor et al. (2022), Pang (2022) and Lewis et al. (2023) assert that working less than this standard can help to address a series of deeply embedded and interconnected challenges facing the world economy such as stagnating productivity, deteriorating mental health and well-being, gender inequality, increasing income inequality, climate change, the impact of automation and AI on work and increasing job polarization.

Claimed benefits associated with a shorter working week include:

- An increase in revenue, staff productivity and an improvement in the quality of work produced;
- More happy, engaged and committed employees due to a better WLB;
- Higher retention levels;
- Reduced stress levels, lower absenteeism and increased staff retention;
- Benefits for local economies as staff spend more money on their days off;
- Benefits for families and local communities due to improved mental health and well-being;
- Benefits for local communities as staff use their spare time to get more involved in volunteering and other community activities;
- Higher levels of overall employment participation across an economy as more people are needed to backfill lost time;
- Higher tax revenues for governments from higher levels of work participation;
- Greater gender equality and diversity by providing more time for caring and family responsibilities:
- Reduced emissions from savings to commuting time and office energy usage;
- Reduced absenteeism, sick days;
- Greater feelings of WLB;
- Reduced commuting;

- Improved physical and mental health;
- Lower levels of job stress and burnout;
- Improved sleep.

Notably, when Schor et al. (2022) asked people in 4-day week trials how much they valued working a 4-day week over a normal 5-day week, 42% per cent said they would require a 26-50% increase in wages, 13% required a 50% increase and 13% said that no amount of money would be enough. The Schor et al. (2022) report assessed the impact of a six-month, 4-day week trial across a range of organisations where employees receive 100% pay for 80% time worked for 100% productivity targets achieved (a 100:80:100 model). Undertaken by an organisation called 4 Day Week Global in collaboration with researchers at Boston College, University College Dublin (UCD, Ireland) and Cambridge University (UK), the results were based on an analysis of pre-and post-administrative, interview and survey data from 495 people across 33 Irish and US companies which collectively employed 903 people the report claims a number of benefits over the trial period. The findings are remarkably positive and indicate few downsides.

Building on Schor et al. (2022), Lewis et al. (2023) report the results of the world's largest trial of a four-day working week undertaken by 4 Day Week Global and Autonomy (an independent research organisation). This trial involved 61 companies on a six-month trial in the UK, which has been presented to UK MPs as part of a push urging politicians to give all workers in Britain the right to request a 32-hour week. As in the previous Schor et al. (2022) study, the results were overwhelmingly positive, with very few downsides reported. Lewis et al. (2023) also reported that despite people in the trial producing the same output within a 20% shorter working week, work pace and intensity didn't rise. Also, people didn't use their extra day off to find additional work. Instead people were using their spare time for leisure, housework, care work and personal maintenance. It was also reported to be good for business. Of the 61 companies that participated in the trial, 56 were reported to be continuing with the four-day week, with 18 confirming the policy is a permanent change.

Building on the 4 Day Week trials by 4 Day Week Global in the UK, the first international trial of the four-day 100:80:100 week was started in early 2022, involving 26 organisations (58% employing 11-25) in Australia, Europe, the US and Canada across a range of industries including 2 in construction (4 Day Week Global 2023). Mirroring previous 4 Day Week Global programs, the six-month trial involved two months of preparation, with workshops, coaching, mentoring and peer support once the trials got underway. The research drew on administrative data from companies and survey data from employees. The most popular approach to organising a 4-day week was for all workers to have different days off (for example, different departments having different days off or them being rotated every week). As in previous 4 Day Week Global reports, the results were overwhelmingly positive, with no negative results at all reported. Time spent commuting fell, employees did more environmentally friendly activities, work-to-family and family-to-work conflict declined, employees were less fatigued and had fewer sleep problems, exercise frequency and duration rose, absenteeism fell, self-reported productivity rose, workers reported a decline in negative emotions and an increase in positive emotions and anxiety fell with significant increases observed in people's physical and mental health.

4.2.2 Different reduced working week models are emerging

What is evident from the above reports regarding the effects of 4-day week trials around the world is that there is no one-size-fits-all model that suits all companies. A range of 4-day week models has been developed to suit different contexts and organisations (see, for example, Lewis et al. 2023). These include:

- Reduced working weeks an employee works less time (in hours and/or days) for the same pay and same outputs. For example, employees may move from a 5-day/40-hour week to a 4-day/32-hour week and maintain their pay by producing the same output. This is the classic 100:80:100 4-day week model discussed above.
- Compressed work schedule involves compressing a normal working week into fewer days by working longer hours on those days. For example, a '4 x 10' compressed work week would compress a normal working week of 5 days at 8 days a day (40 hours) into four 10-hour days. This provides four consecutive longer workdays followed by three consecutive days of rest. In the construction industry, the normal week for many site-based employees is 5 days at 10+ hours a day, plus Saturdays at 6-10 hours a day. If this were reduced to 5 working days of 12 hours, this would be called a '5 x 12' working week. Another popular option is a 9-day, fortnight arrangement, which allows two weeks of work (10 days) to be compressed into nine days (5+4). The CFMEU has advocated this model for a number of years but has been resisted by the NSW B&C industry;
- Fifth-day stoppage: The company shuts down operations for one common additional day per week. This
 was a popular choice in companies where five-day coverage was not important.

- Staggered Staff take alternating days off. For example, the staff may be divided into two teams, one
 taking Mondays off and the other taking Fridays off. This was a popular choice in companies where fiveday coverage was important.
- Decentralised Different departments operate on different work patterns, possibly resulting in a mixture of
 the two models above. This may also incorporate other arrangements, such as some staff working a fourday equivalent over five shorter working days. A decentralised model was chosen by companies whose
 departments had contrasting functions and challenges.
- Annualised: Staff work a 32-hour average working week, calculated over a one-year period.
- Conditional: Staff entitlement to the four-day week is tied to ongoing performance monitoring. Managers can temporarily suspend the four-day week for certain departments or individuals if there is evidence that staff are failing to meet agreed performance targets. This may lead to uneven situations where some staff/ departments are continuing to work five days over periods of time.
- Optional versus compulsory: most companies provided employees with the option of moving to a 4-day working week while remaining on their existing salary, while some required all employees to move to this model
- Flexible versus rigid: Some companies provide employees with total flexibility over the days they take off, while others dictate the 'common' days off that employees can take. In some companies, staff are also permitted to reclaim any hours worked because of emergencies and contingencies arising on their day off, while in others, this is not permitted.
- Protected versus unprotected: In companies, the four-day week was highly protected, meaning that the
 fifth day had a similar status to a Saturday or Sunday, and managers made a special effort to ensure that
 working on those days would not be necessary. In other companies, the fifth day was less protected, and
 managers could require staff to pledge to be available for work on their fifth day in certain exceptional
 situations. In a minority of companies, the scheduled day off was conditional and could be altered at short
 notice by managers.

Importantly, Lewis et al. (2023) also note that the 4-day week had implications for other employment terms and conditions, such as the annual leave policy. For example, some companies keep annual leave allowances the same, while others implement a pro rata reduction in leave. Some companies maintain bank holidays entitlements in addition to a reduced week, while others require that a bank holiday counts as the day off for that particular week. Another complication is associated with part-time workers, with some companies allowing part-time staff to receive a pro-rata working-time reduction (in line with full-time workers). In contrast, others allow part-time staff to continue working their existing hours and receive a pro-rata pay raise. On the other hand, some companies allow part-time staff a small increase in bookable annual leave to compensate for no reduction in working hours, while others allow part-time staff to opt out of shorter working week arrangements altogether.

4.2.3 Companies trialling a shorter working week

An increasing number of private sector organisations are experimenting with shorter working weeks within and outside the construction industry. Outside the construction industry, prominent companies implementing reduced working weeks and flexible working include Microsoft in Japan; Toyota in Sweden; Unilever and Perpetual Guardian in New Zealand; Ford Automotive in the US; Kellogg's and Royal Mail in the UK; Charity Bank in the UK; a software company DELSOL in Spain; The New World Group in Hong Kong; and Telstra in Australia (World Economic Forum 2020, Standing Committee on Economy and Gender and Economic Equality 2020, CEDA 2023, Autonomy 2021, Kari 2019, Ainsley 2022, Joly and Hurst 2023).

Australian researchers at the University of Technology Sydney are investigating the impacts of one of the world's longest four-day week trials in Unilever New Zealand, which is expanding its trial to its Australian business where staff will retain 100% of their salaries and deliver 100% of their normal outputs working 80% of their normal time (Ditzell et al. 2024). This mixed method case study of the 18-month 4-day week at Unilever New Zealand (NZ) provides one of the first critical evaluations of a 4-day week and its implementation. While the study highlights the lack of reliable empirical research on the impacts of a 4-day week, the trial findings show positive business results, reduced absenteeism, increased productivity, and reduced employee job stress and work-family conflict. However, research indicates that successfully implementing a change as significant and impactful as a four-day workweek takes time and careful planning, as well as changing cultures and new ways of thinking and working. This is not easy and is likely to involve redesigning work tasks and roles, changes in organisational structures, new metrics to measure performance based on outcomes rather than inputs, new styles of management based on trust rather than presenteeism, new organisational cultures, norms and practices and change management processes to ensure everyone is involved in the process.

As discussed in Chapter 6, numerous construction companies have trialled various versions of a shorter working week over the last decade or so, albeit mainly on a very limited number of larger economic and social

infrastructure projects that relatively sophisticated government clients procure. The most prominent recent advocate of a 5-day week in Australia has been Roberts Co. Their model is discussed more in Chapter 6 and essentially involves a 'compressed hard 5-day week' where sites are such down on weekends apart from in exceptional circumstances as agreed with the client, or where activities pose unacceptable risk to worker and public health (e.g. tower crane dismantling, erection and maintenance, major road closures/diversions, demolition, noisy work, critical services outages, interfacing with existing buildings, continuous plant activity etc.), to compensate for the lost Saturday working people work longer hours during the week. However, our results show that many construction firms have been operating a 'soft 5-day week', which involves staff working a rotating schedule of 5-day weeks, such as alternate weekdays and weekends off while keeping sites open on weekends.

We critique the numerous research reports into the many trials of shorter working weeks in the construction industry in Chapter 6, highlighting numerous methodological concerns which limited the reliability of drawing universal conclusions about the impact of shorter working weeks on WLB. Furthermore, our findings show that it is still common for people on 5-day week projects to report working very long hours and 6-day and even 7-day weeks (especially during critical periods or to catch up on delays), with highly variable monitoring or enforcement by clients. While it may seem that firms are submitting a 5-day week tender, many are programming and pricing a job on a 6-day week, and the 5-day week project is widely seen as more of a myth than a reality by many in the construction industry. Finally, it is important to note that while the idea of a compressed working week may be new to many people in the construction industry, it has a long history in other industries (see, for example, Wedderburn 1996, Bambra et al. 2008, International Labour Organization 2022). However, despite many claims being made about the merits of such an approach, a recent report by the International Labour Organization (2022) cautions that reliable data on the pros and cons of compressed work weeks does not yet exist and that there are some significant potential risks which need to be assessed. These are discussed in more depth in section 4.4.

4.2.4 Countries trialling a shorter working week

An increasing number of countries are trialing shorter working hours and flexible working, with some of the strongest advocates being Finland, Belgium, Spain, Iceland, France, Switzerland, Sweden, Netherlands, Germany and Denmark. In these countries, labour and industrial relations laws ensure workers have some of the world's shortest average working hours, driven by a belief that WLB is compatible with social stability, better health and well-being, better social and family relationships, equality of opportunity in employment and low unemployment, higher productivity and economic prosperity (Standing Committee on Economy and Gender and Economic Equality 2020, Spencer 2020, Kelly 2021, Lingard et al. 2021, Ines and Bietenbeck 2020, Autonomy 2021).

France

In France, the maximum weekly hours are 35 hours, which can be increased to 44 hours, on average, over a period of twelve consecutive weeks, within a limit of 48 hours in a single calendar week. The maximum working day is 10 hours, which can be increased to 12 hours, subject to certain conditions. Any additional weekly hours worked over 35 must be paid at an overtime premium of 25 per cent for the first eight hours and then a 50 per cent premium for every additional hour. When introduced gradually between 1998 and 2002, a wage freeze spanning 18 months was enacted. This meant that the cost of the shorter working week was shared between employers (who had to employ more workers), employees (who effectively sacrificed pay increases over this period) and the government (which gave tax concessions to lower-income workers). This, combined with increased flexibility arrangements between employees and employers and a slight increase in productivity, contributed to overall labour costs remaining relatively unaffected (Standing Committee on Economy and Gender and Economic Equality 2020, Stronge and Harper 2019). However, recent technological developments have enabled employees to be constantly available, leading France to pass another law in 2017 requiring companies with more than 50 employees to establish off-limits email hours and the right to disconnect to protect private time, ensuring employees get paid fairly for work and reducing burnout and work-related stress (Morris 2017). In 2022, Portugal also introduced a law to prevent bosses from contacting workers outside of defined working hours with associated financial penalties if they do (except in circumstances of force majeure).

Iceland

Iceland has also moved to a shorter working week following a widely publicised trial by Reykjavik City Council (between 2014 and 2019) and the national government (from 2017 to 2021,) which reduced an average 44-hour working week to about 36 hours per week without reduced pay. New national laws and contracts between unions and employers ensure that around 86% of the Iceland working population now have reduced

hours or other accommodations.

Sweden

Sweden experienced mixed results from a trial to move from an eight to 6-hour day in 2015 without loss of pay, finding it was too expensive to implement on a large scale.

Belgium

Belgian employees won the right in February 2022 to decide whether to work four or five days a week with the aim of increasing employment rates across the population and helping improve peoples' WLB. Under the arrangement, workers have a choice between working 9.5 hours a day for four days or 8 hours a day for five days at the same pay rate, with employees unable to perform overtime. The legislation came into effect on 1 February 2022 in the public sector, and from 1 January 2023, the measure was extended to apply to employers with 20 or more employees. The measure provides employees the right to remain disconnected when not at work without fear of reprisals.

Spain

The Spanish government also launched a four-day working week pilot programme in 2022 to help small to medium-sized enterprises cut their working week by at least half a day without reducing worker salaries. This was supported by a €10 million government fund, which required participating companies to design ways to increase productivity that compensated for the wage cost overruns. This followed a 2021 trial in which the Spanish Government committed €50 million, a four-day week trial which reduced the working week to 32 hours without a reduction in pay. Under the scheme, the government proposed to cover involved company costs by 100 per cent in the first year, 50 per cent in the second year and 33 per cent in the final year of the trial.

United Kingdom

The United Kingdom (UK) recently reported the results of the world's largest trial of a four-day working week, undertaken by 4 Day Week Global and Autonomy (Lewis et al 2023). Adopting a four-day week has won significant political support, including from the Scottish and Welsh governments. In February 2024, the Scottish government launched a four-day working week trial for some public services, and advocates are calling for policies that would allow workers the right to request a four-day week with no loss of pay, a wider public sector trial, and funding to support the shift in the private sector. However, the UK Government is generally sceptical of a 4-day week. In October 2023, UK Ministers formally warned councils in England to abandon any plans to adopt four-day working weeks for staff, believing that a four-day week does not represent value for money and is a potential threat to productivity and the quality of services delivered (Bulter 2023). In February 2024, it was reported that the UK government had no plans to introduce a four-day working week, preferring it to be left to employers and employees to agree on what working arrangements work best for them and making changes to its flexible working legislation to include the right to request flexible working from day 1 of a new job.

The Republic of Korea

The Republic of Korea is a country with historically long hours of work. However, in 2004, it introduced a five-day working policy, effectively making Saturday an official non-work day, setting an 8-hour normal workday and reducing the standard legal work week from 44 to 40 hours. The 40-hour workweek law allowed the workday to be extended to 12 hours as long as there was agreement between employee and employer. To help employers make the transition, the first four hours of overtime were charged at a 25 per cent extra hourly wage and thereafter a 50 per cent extra hourly wage. After three years, all overtime was set at plus 50 per cent of the employee's wage for all additional hours above 40 hours per week. The overtime premium could be avoided if the parties agreed upon flexible working-time arrangements. For example, if an employee worked 48 hours in a given week, no overtime pay would be paid for that week as long as the number of hours they worked per week averaged 40 over a three-month period, including that week. The Government encouraged the public sector to take the lead in this initiative and share best practices for implementing the working-time reduction.

Japan

In 2021, the Japanese government announced an optional four-day week to achieve a better work-life balance because of nationally high rates of suicide and death by overwork.

United Arab Emirates

In 2022, the United Arab Emirates transitioned to a 4.5-day work week, with weekends to consist of Friday afternoon, Saturday and Sunday in federal government entities. Saudi Arabia is also reviewing the possibility of implementing a three-day weekend to shorten the work week.

Australia

Australia has no formal plans to introduce a shorter working week, although The Senate Inquiry into Work and Care (Commonwealth of Australia 2023) recently recommended that the Government undertake a 4-day workweek trial based on the 100:80:100 model. However, Australia has recently introduced legislation through its Closing the Loopholes Bill 2023, making changes to the Fair Work Act, which, from 26th August 2024, means that Australian workers cannot be compelled to respond to work calls or emails outside their scheduled hours. Organisations penalising employees for not responding could find themselves before the Fair Work Commission. However, business groups are complaining about the lack of clarity regarding what would constitute a 'reasonable' expectation to require an employee to respond to a work call or email. The opposition has also threatened to overturn this new legislation (Karp 2024). This "right to disconnect" legislation has been introduced to protect people's WLB, health and well-being in an increasingly hyperconnected world and brings Australia into line with countries such as France, Spain, Portugal and Italy, which already have similar laws or regulations.

4.3 The organisation of working hours

In recent years, an increasing number of commentators have argued that the concept of the standard work week as defined by the ILO Hours of Work (Industry) Convention, 1919 (No. 1) no longer suits or represents the reality and challenges of many people's working lives. While a highly standardised typical working week of 8 hours a day for 5 days a week (typically 9 to 5, Monday to Friday) may be positive to WLB by providing stable and predictable work schedules, the inherent rigidity in such an arrangement can make balancing work and personal commitments challenging for many people, such as those with family and caring responsibilities. As Neilson (2023b) notes, societal changes such as those discussed in Chapter 3 are driving organisations to experiment with alternative employment models that give workers more control over their working lives through flexibility to choose when, how, where and how long they work. These can be combined with reduced working weeks and hours or used instead of them. Brauner et al. (2019) reported that workers with schedules that allowed for high control over working time reported increased health benefits, especially those in more demanding jobs.

This has led to a wide range of flexible work schedules being developed, each with its own advantages and disadvantages, making it confusing to choose the best model for an organisation and its employees. Some of these schedules may also be restricted by legislation in some countries. For example, many countries have laws regulating and even prohibiting zero-hours contracts, which have no minimum hours but lock an employee into an exclusive employment relationship.

Common alternative working models include:

- Fixed working schedules set days and hours which create alternative work weeks (for example, an employee may work Tuesday to Saturday from 8 am to 4 pm);
- Full-time schedules the total number of hours worked per week is set, but the hours per day and number
 of days worked to achieve this are not (for example, an employee may work 40 hours per week over a
 three-week cycle by working five 8-hour days, four 10-hour days, or six 6.5-hour days);
- Part-time schedules an employee works fewer hours or days a week than a full-time role;
- Shift work schedules groups of workers working different fixed working schedules to keep a business working around the clock (for example, a first shift may work 7 am to 3 pm, a second shift may work 3 pm to 11 pm, and a third shift may work 11 pm to 7 am;
- Flexitime employees can arrive and depart from work at different times within certain limits. Employees are often required to work a certain number of core hours (e.g., 11 am to 2 pm) in a certain place (e.g., a site or office). The employee can then work the remainder of their hours when and where they wish;
- Telecommuting employees can work remotely some of the time but must work at the place of business for specific meetings or tasks;
- Hybrid working employees can combine working from different locations (home, in transit or the office)
 in a way which suits their lives;
- Job sharing two or more employees work on a part-time or reduced-time basis to perform a job normally fulfilled by one person working full-time;
- Semi-flexible schedules employees can choose to work earlier or later than normal hours as long as

they work the required number of hours (For example, to avoid traffic, an employee may decide to start at 7 am and leave at 4 pm, giving them an additional hour available in the evening);

- Alternate/customised schedules any work schedule that is different from the schedule used by others in a business, which is often implemented to accommodate employee needs such as family responsibilities or medical needs;
- Team-based arrangements project teams agree internally to work flexible schedules within the constraints
 of project deliverables to suit the different personal needs and circumstances of different team members
 in a fair and transparent way;
- Project-based working working on specific time-limited projects. This is especially relevant to project-based industries like construction;
- Time off in lieu an employee can work additional unpaid hours every day beyond their contractual obligation, which then accrue to take a day off at some point in the future (This is the basis of RDOs negotiated for construction workers in construction industry EBAs).
- Time-banking permits workers to build up credits or accumulate debits in hours worked, up to a maximum amount over periods which can range from several weeks, months to one year or even longer;
- Rotating schedules employees work varied shifts over a time-limited cycle (for example, an employee could work five consecutive 10-hour shifts followed by three days off over a 25-day cycle. Then, they work five consecutive 10-hour third shifts, followed by four days off. Finally, they work five consecutive 10-hour second shifts, followed by three days off).
- Split schedules an employee may start early, have several hours off, and then work late to finish their day off:
- Unpredictable work schedules employee work schedules change from week to week in an unpredictable way.
- On-call schedules an employee is available to work any time, day or night, as the employer demands. These often rotate between employees so that one person doesn't have to work all the time;
- Overtime work schedules an employee works extra hours for paid overtime at a higher rate per hour (e.g., time-and-a-half or double time);
- No Set Schedule an employee can work whenever they choose if the work gets done by a set deadline. If they finish their task in less than the allotted time, they can take the rest of the week off;
- Remote working an employee works away from the place of business either by choice or as an organisational requirement.

4.4 The potential downsides of balanced working arrangements

Despite the many claimed benefits of balanced working arrangements such as flexible working and shorter working weeks, there have been long-standing concerns about methodological weaknesses in research and the overwhelming positivity of the debate.

4.4.1 The potential downsides of shorter working weeks

The underlying assumption of advocates of a shorter working week is that long working hours are detrimental to WLB and health and well-being. However, Kodz et al.'s (2002, 2002a) research shows that the impact of long hours can be both negative and positive for people and that any negative health effects of working long hours vary significantly according to individual, workplace and role demands and characteristics.

Research shows that people work long hours for many reasons (positive and negative), which can be difficult to disentangle. Moreover, many people are happy with their long work hours and highly resistant to attempts to reduce them since they can produce many important benefits such as increased income. Indeed, Kodz et al. (2002, 2002a) note that men who work long hours sometimes report being healthier than men who work shorter hours, although this could be the result of healthier people being able to work longer hours than those with ill health. In contrast, partnered women are more likely to report negative health outcomes from working long hours because they typically must balance household tasks on top of work.

Kodz et al. (2002, 2002a) also argue that many claims about the detrimental impacts of long working hours can be questioned due to methodological concerns about the size and nature of the samples being studied and the methodologies used to collect and analyse data. These limitations are also raised by Tucker and Folkard (2012), who argue that they are not always acknowledged by researchers or appreciated by policy-makers and managers when making decisions.

Kodz et al. (2002, 2002a) also note that much research about the links between long hours working and the frequency of health and safety incidents is limited to specific occupations such as long-distance lorry drivers and the medical professionals. This prevents more general conclusions from being drawn for industries like construction. Furthermore, claims that reductions in long hours of work are often accompanied by other

initiatives with effects that cannot be easily isolated, such as changes in work organisation, new capital investment, etc. While Kodz et al. (2002, 2002a) present evidence of studies linking long work hours with sleep disruption, lower task performance and rates of error and antisocial behaviour, they could find no conclusive evidence that long work hours lead to lower levels of overall work or organisational performance. Furthermore, there was little robust statistical evidence on the effects of long work hours on employee motivation, absence and turnover.

The International Labour Organization (2019) report also argues that the claimed benefits of shorter working weeks are not guaranteed and are difficult to quantify. For example, the UK Centre for Policy Studies (Elsden 2019) questioned the assumption that productivity improves when people work a shorter working week (especially in the long term as people revert back to normal working behaviours and intensity) and that this would cost the UK public sector £17 billion to £45 billion (depending on productivity assumptions made) and require significant tax rises or spending cuts in public services. Alternatively, they argued that any productivity gains could be channelled by businesses towards reducing employment or cutting workers' hours rather than improving public sector services.

Swinney et al. (2023) also argued that the evidence is unclear as to whether a shorter working week has real productivity benefits over the traditional working week. Instead, there may be a significant productivity reduction from implementing these sorts of initiatives. Governments and organisations need to be careful not to rush into setting lots of policies in the short term that cause long-term problems that are difficult to reverse. More recently, Ditzell et al.'s (2024) review of an 18-month 4-day week trial in Unilever New Zealand (NZ) notes that while interest in the 4-day week has escalated, the model lacks rigorous examination. Lewis et al. (2023) also acknowledged that a 4-day working week does not suit all industries (such as emergency services, public transport networks and logistics) and neither does it suit all workers (such as those who prefer the structure of a five-day week and like working overtime because of links to higher pay). As the UK's Confederation of British Industry has argued, the 4-day week is not a 'one-size-fits-all' answer, would be unlikely to pay for itself in many industries and could be treated by many employers as an alternative to increasing employment, pay, pensions or paid parental leave, as well as better supporting health and wellbeing (Hall 2024). Furthermore, a 4-day week can increase business costs due to potential negative impacts on worker productivity, which is often very difficult to measure and monitor in practice. Finally, as Stronge and Harper (2019) argue, it is critical that a 4-day week is embedded into the economy as a whole, with no pay reductions, to ensure that everyone can benefit equally. If this is not done, a new form of inequality could emerge between those who can afford time autonomy (and reduced wages) and those who cannot. This will require legislated cooperation between unions, businesses and government.

Finally, reliable extrapolation of current shorter working week studies to the construction industry is problematic. For example, in the Schor et al. (2022) study of the 4-day week, the vast majority of the 33 companies involved were very small (52% employed 1-10 people) and in the administration, information technology, telecom/professional services and not-for-profit sectors. Only one company in the sample was a small construction/planning/architect practice in the UK. Furthermore, the research did not take place in a project-based environment but in permanent business organisations. The sample was not representative of the construction industry because it was 47.56% female/50.81% male, mainly white (74%), American and Australian (40.91% and 21.07%) and highly qualified managers (71.54% degree qualified and 3.66% trades). Similarly, while Lewis et al.'s (2023) results were based on a sample of 61 companies, these were mainly marketing/advertising (18%), professional services (16%), charities/non-profits (11%) and healthcare, arts and entertainment, manufacturing and retail. Construction companies represented only 4% of the sample (2 companies), and most companies were small, with 66% employing 25 or fewer employees. As in the Schor et al. (2022) study, 62% of the survey sample were women, 70% were married or cohabiting, 52% had at least one child, 90% were white (4% Asian/Asian British), 88.8% lived in the UK (Australia 3.7%), 68% had at least an undergraduate degree, 67% were executives, managers or professionals. The researchers also note that there was an absence of reliable productivity and other performance metrics in the data because of variability in the quality and kinds of data companies collected. While the 58 interviews and 1967 survey responses were based on a mix of researchers' own questions and academically validated scales to measure wellbeing, it is not clear how WLB was measured. Furthermore, like the Schor et al. (2022) study, the research did not take place in a project-based environment but in permanent business organisations. Indeed, Hertzog-Young (2021) does not believe that the construction sector is ready for the wholesale implementation of a four-day week and calls for more rigorous research across a variety of models in order to better understand the risks and benefits involved.

More recently, while soft 5-day weeks (based on rotating schedules which keep sites open) are becoming common in many large construction firms, including models which allow people to work as little as three days

if they deliver on goals, concerns have been raised about the unfair burden and negative recruitment impacts this imposes on small and medium-sized builders who may not have the resources to roster Saturdays or offer an outright 5-day work week (Construction People 2023).

4.4.2 The potential downsides of compressed working weeks

There has been much research, going back numerous decades, highlighting the potential risks of implementing a compressed working week. For example, Tucker and Folkard (2012) highlight a lack of methodological rigour, consistency and reliability in research relating to compressed work weeks. They argue that the health effects of compressed work weeks are contingent upon a wide range of factors. While many studies claim that a compressed working week can improve productivity, happiness and well-being, the reality is much more complex. For example, positive outcomes are most likely associated with well-designed schedules that minimize circadian disruption. On the other hand, negative health outcomes are most likely associated with extended shifts in combination with either high work demands or physical exertion, such as those experienced in the construction industry by trades like bricklaying, steel working and form working. There is also considerable evidence of an association between compressed work week extended shifts and the incidence of musculoskeletal problems. These questions and qualifications build on evidence from much earlier work (see, for example, Kopelman 1986).

The International Labour Organization (2019) noted that it is unclear how particular job characteristics make some occupations or types of work better suited to compressed working weeks than others, making claims of any universal benefits potentially dangerous to some people. For example, Kopelman's (1986) and Harlington's (2022) analysis conclude that while the compressed working week can yield many benefits for employees, it can also have numerous downsides.

Potential downsides of a compressed working week:

- Single parents, women and carers can struggle to meet family responsibilities during longer working days;
- People suffer increased overall fatigue levels (especially when they take second jobs to fill spare time);
- There can be slippage in hours worked and productivity due to boredom and fatigue (especially for repetitive and manual jobs);
- Overtime can be hard to schedule because of the already long hours worked daily;
- People need to coordinate with teammates to ensure work does not stop on their days off;
- Communication can suffer internally and also externally with business partners and clients.

Compressed working weeks can be especially problematic in industries like construction, where work is already considered dangerous when working eight-hour shifts (International Labour Organization 2019). For example, research in the US by Dong et al. (2005) showed that construction workers who worked more than eight hours per day were 1.57 times more likely to be injured than those working between seven and eight hours per day. Those workers involved in heavy manual work are naturally more exposed to this risk than those involved in lighter tasks. Lavin and Spillane (2019: 507) also noted several negative impacts in the Irish Construction industry, which included: "potential exhaustion, particularly those with physically strenuous tasks, poor diet due to longer time-on-site, increased difficulty working in winter months (cold/ daylight), exhaustion post commute home after a long twelve-hour day and, not seeing family/friends due to late arrival home". According to Hertzog-Young (2021), those working 12-hour days are 7.5 times more likely to be sleep deprived, meaning workers are 62 per cent more likely to have an accident.

Long working days are especially prohibitive for those who have after-work caring and family obligations, and it leaves little time for essential daily activities and chores during the week, such as banking, cooking meals, grocery shopping, or leisure and exercise. Single parents, both men and women, are also more adversely affected because they have no spouse or partner back-up. However, since women often take the bulk of these responsibilities in many families, this can have an especially adverse impact on women's mental health (Stronge and Harper 2019). As Wedderburn (1996) noted over two decades ago, compressed working weeks suit some industries and types of workers more than others, and careful planning, consultation and communication are essential to successful implementation.

Essential considerations in effectively introducing a compressed working week include:

- Is it voluntary or compulsory;
- Fatigue management;
- Rostering the day off;
- Deployment of the workforce per day /week /month;

- Will certain roles/departments not be included;
- Times for starting and finishing work;
- Compliance with labour law regarding working hours and conditions;
- Development working permits around hours of work on sites;
- Communications with employees, business partners and clients who may not work similar hours of work;
- Labour market impacts such as recruitment and retention;
- Impacts on teamwork;
- Potential impacts on individual employees' income, health and well-being and leave and other entitlements;
- Other initiatives needed to support such working arrangements.

In terms of safety, research into the impact of compressed working weeks is equally inconclusive, with some research indicating a substantial increase in the risk of injuries and accidents in the last three hours of a 12-hour shift, while others find this risk is more related to the total number of hours worked a week. This supports research in construction, which shows a similarly complex relationship between work hours, safety incidents and accidents and worker health in general, with studies showing negative impacts after 7-8 hrs work a day due to less recovery time and longer exposure to work-related hazards (Lingard et al. 2021). This aligns with warnings by the International Labour Organization (2019) that compressed working week arrangements can increase fatigue and decrease alertness in workplace environments characterised by long working hours, long commutes and dangerous jobs – such as in construction. Employees working compressed working weeks can also suffer elevated levels of stress from higher work intensity. Businesses can also suffer due to potential damage to relationships with customers and business partners who are not working similar schedules. Error and re-work could also increase, despite already being a major construction industry problem, representing up to 25% of project costs (Love 2002, Love and Matthews 2022).

Finally, given that the compressed working week is being advocated as a way to improve gender equality in the construction industry (see Chapter 6), it is notable that Tucker and Folkard (2012) also found very little evidence of gender differences in the impact of compressed work weeks. Studies across various male and female-dominated industries (police, air traffic control, nursing, etc) found that women and men evaluated the impact of compressed work weeks similarly. Indeed, there is evidence that women experience more time stress when working compressed work weeks than men. This is linked to the negative impacts on time available for daily non-work activities such as domestic and caring duties and childcare responsibilities, which cannot easily be rescheduled and for which they often have primary responsibility. Working longer days can also make times of peak stress in the morning and after work even more stressful, increasing pressure to accomplish more household tasks during their additional rest days.

The above concerns about compressed working weeks are mirrored by the Australian Federal Government's Standing Committee on Economy and Gender and Economic Equality (2020). The report is generally critical of compressed working week models and notes that the human impacts of work time compression are highly contested. In particular, it notes several studies that have shown that worktime compression is not beneficial for workers in general and women in particular because of the extra pressures it imposes during the longer weekdays.

Given all the above, The International Labour Organization (2019) recommends that in implementing a compressed working week, extended workdays should only be contemplated when the nature of the work and the workload are suitable (adequate breaks, no overtime). The shift system should also be designed to minimise the accumulation of fatigue by minimizing the number of successive extended work days. The ILO also suggests that if the decision is made to implement compressed working week arrangements, then organisations should make provisions to avoid overtime (since compressed weeks already involve longer daily hours), other forms of additional employment, and long commutes where it impacts recovery. Our results indicate that all these points raise concerns for many wage earners in the industry who travel long distances to work and fear losing access to overtime in such arrangements. Organisations should also employ fatigue counter-measures in order to minimize the impact of extended shifts, allow shorter, more frequent breaks, ensure adequate recovery between shifts, take account of risk factors outside the workplace for some workers such as women and carers who may increase risk of fatigue further (e.g. domestic and care duties); and redistribute workloads to be low at times of high fatigue (e.g. during the last few hours of the shift). All of these measures could potentially negatively impact productivity in the construction industry.

4.4.3 Flexible working

Holweg (2022), Soga et al. (2022), and Knight et al. (2022) have also raised important questions about the overwhelming positivity and validity of many contemporary studies on flexible working by noting that many leaders are meeting employee demands for more flexible work arrangements amid deep concerns over

their impacts on issues such as organisational culture, innovation capability and long-term productivity. They found that while flexible working practices can have many potential benefits, the seemingly universal benefits claimed are conditional on many factors such as role, industry, gender and age. Importantly, they found that routine project work and collaborative creative tasks that depend on strong teamwork (such as those found in construction) were least amenable to hybrid working and that managers need to develop skills to manage people virtually to keep them engaged and productive in the long-term. Recently, Cuffe (2023) also questioned the overwhelming positivity of the flexible working debate, noting that there are real challenges in linking flexible working to claims around productivity increases. They argue that flexible working obscures accurate measurement of productivity by blurring the boundaries between work and other non-work activities.

As discussed in Chapter 3, the COVID pandemic has accelerated already changing attitudes towards remote and hybrid working. However, the World Economic Forum (2020) noted that while remote and hybrid working had nearly doubled since 2011 (from 28% to 54% of workers), not all industries and workers had benefited. This is supported by the Australian Productivity Commission report (2021), which noted that while most workers want to work from home at least some of the time (mainly to avoid commuting time and costs), their ability to do so is strongly tied to their occupation. Both reports show that industries that have been able to offer the greatest opportunities to work from home are service-based industries like information technology and insurance, finance, legal work, and business services. The types of roles which have benefited most are office-based workers such as managers, professionals, and clerical and administrative workers who heavily rely on computers to do their work, interact less with the public, and do not work on immovable structures, materials, or equipment like construction workers do. Interestingly, these differences in accessibility to hybrid working have led the UK Trades Union Congress to warn of a class divide emerging around hybrid working, with desk-based workers increasingly enabled to work from home and such arrangements benefiting those with higher incomes. Furthermore, the reports note that many potential downsides of hybrid and remote working, such as social isolation, poorer collaboration and teamwork, reduced face-to-face communication and the challenges of re-organising work around such arrangements (78% of business leaders expected some negative impact on productivity with 22% expecting a strong negative impact).

The Commonwealth Government's Work and Care Committee Final Report (Commonwealth of Australia 2023) also argues that unless flexible workplace arrangements are made accessible to all employees, they can inadvertently reinforce gender inequality in the workplace. For example, many fathers and partners report experiencing discrimination for taking parental leave at their workplace, and men are much more likely to have their request for flexibility denied than women. There is also much evidence that people who use flexible working arrangements miss out on important promotion opportunities and are often penalised and offered fewer opportunities for advancement, training or professional development. The International Labour Organization (2022) also warn that flexible working can reinforce gender stereotypes. Studies on the utilization of flexible working indicate that mothers predominately use it for childcare, while fathers typically use it for personal activities. Some studies have also found no significant relationship between the presence of flexibility programmes (both time and place), improved WLB and both work-to-family and family-to-work conflict (Soga et al., 2022). Furthermore, some unscrupulous employers seek to misuse the term 'flexible' to force insecure, unpredictable, unprotected and ad hoc employment arrangements on vulnerable employees.

Despite many organisations implementing flexible workplace initiatives, a substantial body of research shows this has not always resulted in better-balanced lives (Gregnano et al., 2020). Kodz et al. (2002) also identified many factors, which often interact in complex ways, that can dissuade employees from taking up flexibility that might improve their WLB. Ironically, this means that while some people might opt to work reduced hours, in reality, they often continue to work full-time and, in some cases, extended hours by filling their spare time with other jobs.

Factors which can affect the effectiveness of flexible work practices include:

- Potential impact on earnings. For some workers on wages, some flexible working practices can result in a potential reduction of overtime pay and part-time work or career breaks can affect long-term earnings. This is something that low-paid employees, in particular, cannot afford;
- Perceived and real impact on career prospects (for example, missing out on opportunities for promotion while on leave or part-time work);
- Unsupportive organisational cultures which dissuade people from taking up flexible working options, such
 as an entrenched long-hours culture and unsupportive attitudes and behaviours of senior managers, line
 managers and colleagues;
- Heavy workloads which make it difficult to see how an alternative way of working would work;
- A lack of knowledge of what is available and feasible, especially when the employer relies on the creativity
 of the individual to identify solutions for themselves;

- Infrastructure and technology not being in place which would support the uptake of such initiatives as working from home;
- The impact of work intensity, workload, and pay adjustments on flexible working are difficult to estimate
 and implement. New pressures accumulate when people are required to produce the same amount for
 the same pay in a reduced time, which can undermine WLB. Some types of workers (for example, women
 and people with family and other caring responsibilities) can be more affected by these pressures than
 others.
- Lack of training on how to take advantage of flexible working and optimise personal and organisational outcomes and productivity;
- Peers and managers sometimes question the commitment and performance of staff taking up flexible working options. Putting in fewer hours is equated with contributing less.
- Individuals feel pressured to produce the same output level even though they may have reduced their working hours. There is often a sense of guilt that they are letting down the team.
- Organisations do not always change their business systems, processes and expectations to accommodate flexible working. This can lead to resistance to change and sub-optimal outcomes;
- Line and project managers are often left to make WLB policy on the run with little guidance, support and monitoring. Contributory factors include inconsistent messaging from different levels of management; confusion about impacts on roles and responsibilities; lack of HR support in dealing with difficult issues about access and parity; patchy commitment to WLB, especially among more senior leaders; a lack of clarity about what initiatives can achieve and risks and opportunities in general; lack of experience in managing staff working in flexible ways which requires managers to think differently about staffing patterns.
- Availability and access to WLB are often inequitable, leading to resentment amongst employees.
 Generally, managers are most inclined to accept employees caring responsibilities as a valid reason for
 working flexibly. They are most prepared to consider the needs and interests of key groups of staff who
 are most difficult to replace. Lower-level employees often have less access to flexible working

In summary, the potential 'hidden' downsides of flexible working practices raise important considerations for any individual, policy maker or manager thinking of moving to more flexible working (see Soga et al. 2022, Geddes 2023, Bellini 2023, Swinney et al. (2023).

These include:

- The increasing use of associated worker monitoring and control measures when working remotely has
 raised regulatory concerns about how flexible working affects the privacy and rights of employees and
 employers.
- Fragmentation of work relationships and poorer teamwork and communication due to reduced face-to-face contact and personal relationships and commitment.
- Associated negative impacts on productivity, creativity and innovation, especially when there is a lack of
 expertise and resources such as technology to re-organise work around flexible working.
- Poorer WLB due to blurring boundaries between work and home life, extended demands on worker time, constant connectivity and inability to escape from work and manage boundaries between work and home.
 Some workers become workaholics in flexible work environments and seem unable to stop working and switch off. The lack of monitoring and controls in place can create new stresses and damage to family life and other non-work domains and relationships.
- Negative impact on gender equity, women's safety and career progression through increased isolation, increased exposure to domestic violence, reduced transparency about promotion and wages, reduction in visibility and mentoring/sponsorship and blurring the lines between work and home demands for which they often remain responsible.
- Hybrid working can enable 'hidden' toxic workplace cultures which contribute to bullying in the workplace.
- Exacerbated workplace inequalities since hybrid working does not benefit everyone equally. Especially
 negatively affected are small businesses which do not have the technologies to support such practices
 effectively and under-represented groups from low socio-economic backgrounds with limited access to
 comfortable and safe spaces and resources and support outside work.
- Health problems including stress, mental health impairment, and burnout associated with social isolation, poor resources and support structures and equipment and unhealthy and unsafe home working environments.
- Hybrid working doesn't suit everyone, especially those with a high work salience, who derive social benefits from attending work and value face-to-face interaction and teamwork to enhance performance.
- In industries with established cultures of long work hours and presenteeism, like construction, flexibility
 carries a social stigma, which, without changes in work cultures and practices, can punish those who do
 not fit the "ideal worker" profile, that is, persons who are solely devoted to their job, available 24 hours a

day etc.

- Increased job insecurity and underpayment due to the potential for increased unpaid overtime, lack of workplace relationships and a sense of mutual responsibility.
- Poorer communication and connectivity and the erosion of cohesion in organisations with negative effects on work commitment and engagement in teams with corresponding adverse effects on job satisfaction.
- Higher employee attrition rates as a result of withdrawal behaviour and non-engagement of employees. They are potentially exacerbating already critical skills shortages in industries like construction.
- Reduced quality of leadership due to depersonalized approaches to managing work and lack of expertise in managing technologically dispersed teams.
- Negative effects on employee remuneration and career progression due to social isolation.
- The unintended consequences of using digital technologies and platforms to support home working, such as extra costs associated with providing effective support infrastructure, e-exclusion, digital divides due to differences in resources available to support remote working, data security and corruption, technology-induced fatigue, communication breakdowns and perceptions of surveillance by employees, unreliable Internet connections and speed, poor or inadequate equipment and technology reliability problems. This could distort markets by reducing the competitiveness of smaller players (digital destruction).
- The undermining of workplace rights associated with reduced decision-making transparency, opportunities
 for collective action and organising, and workers can be divided by unscrupulous managers to their own
 benefit.
- Potential environmental impacts. While hybrid working can reduce the carbon footprint through reduced commuting, there is no understanding of the potential carbon footprint impacts of more dispersed workforces working from what could be less carbon-efficient homes. For example, there is evidence of a substantial shift from public transport towards less carbon-efficient road travel and that people working from home tend to make more frequent non-work car trips.
- The shifting of work-related cost burdens and OHS and well-being responsibilities from employers to
 workers in maintaining healthy workplaces and work practices. There is little empirical evidence on the
 financial impact of flexible working on both organisations and workers.
- Inequalities in access to flexible working. The 'knowledge' jobs that are amenable to working flexibly are currently concentrated in the biggest cities. Those working in remote and regional areas can be relatively disadvantaged.
- As more people work from home and avoid commuting into the CBD, some economic activity (such as
 demand for retail, hospitality and personal services) is expected to shift from the CBDs to the suburbs.
 And demand for office space could decline as some firms look to downsize or relinquish their offices. This
 has prompted some to call for workers to return to the office to 'save the CBDs.' See, for example, the
 recent 'Return-to-Office' Directive of the NSW Government sector, which has told public sector employees
 that they should work "principally" from their on-site workplace, moving away from working from home
 arrangements.

4.5 What determines the effectiveness of balanced time working arrangements?

Given all the potential benefits and risks associated with balanced time working in this chapter, it is relevant to identify the key factors determining their effective implementation into a work environment. These include:

- Understanding the risks and benefits This chapter shows that while there is a strong argument for more balanced time working arrangements, there is also considerable evidence of potential downsides, often hidden in the overwhelmingly positive research in this area. Any decision to implement balanced work arrangements should not be taken lightly since they are likely irrevocable. Therefore, any change must be carefully considered and be underpinned by reliable and unbiased evidence-based research into the pros and cons of different balanced working practices and what they mean for everyone in the construction industry;
- Agreeing on how risks and benefits will be distributed While progressive government construction clients
 may be willing to share the costs, risks and opportunities of implementing an altered (compressed) working
 week, these are not typical of the vast majority of clients in the construction industry and how these largely
 unknown risk and opportunities will be distributed is yet to be played out in practice. The danger in the
 construction industry is that, like most other risks, the risks of balanced working arrangements, such as a
 5-day week, will be passed down the contractual chain to small subcontractors where they can be least
 born. The dysfunctional results of transferring risks to unwilling parties which do not have the capacity to
 manage them effectively are widely documented in the construction management literature (Loosemore
 et al. 2005) and is likely to lead to problematic outcomes here too;
- Challenges in implementation As the International Labour Organization (2019) warned, there are
 many informal norms and practices that may undermine the actual working of balanced working time
 arrangements. Von Seggern et al. (2021) and Commonwealth of Australia (2023) state that realising the

potential benefits of flexible working depends on a supportive working environment and organisational culture, leadership by example and consistent and accountable reporting of outcomes to leaders. Increased flexible working also requires changes to the amount and design of workplaces and appropriate resources, such as greater investments in technology, both on-site and in the home office. The pace of implementation is also important. Research shows that incremental changes over time, which allow for risks and benefits to be understood and managed, seem to be more effective;

- Creating, monitoring and enforcing clear policies and practices A recent 2022 survey of more than 17,000 employees and 1,575 employers across 22 countries and 26 industries by Fealy and Feinsod (2022) found that while more employers recognise the need to make more provisions for flexible work, many had not made such accommodations and created and communicated clear policy and guidelines.
- Meaningful consultation with those who are potentially affected While many employees and employers seem to agree that the old status quo of the working world is changing and that flexible working is likely to become more common, the form it should take in different organisational and industry settings remains contested and needs to be agreed between all key stakeholders.
- Leadership is critically important As discussed above, and in our findings, many private sector clients are
 unlikely to care about or support balanced working time initiatives that improve WLB in the construction
 industry. They may even oppose them if they involve greater cost and time, which our results suggest is
 highly likely in the case of a hard 5-day week. Moase's (2016) work is therefore relevant in arguing that
 the public sector can be an especially important catalyst for change by demonstrating the benefits of such
 policies through self-adoption and incentivising change.



5. THE REGULATION OF BALANCED WORKING TIME ARRANGEMENTS IN AUSTRALIA

This section provides a brief overview of how balanced working time arrangements are regulated in Australia. It outlines the law relating to working hours and flexible working in Australia and agreements relating specifically to the building and construction industry.

5.1 Maximum working hours

Unlike many other countries, Australia does not have statutory limits on working hours. However, as noted earlier, the Australian National Employment Standards (NES) and the Fair Work Act 2009 set minimum employment standards for all employees regardless of award, registered agreement or employment contract. These dictate that an employer must not request or require a full-time employee to work more than 38 hours a week (including any authorized hours of leave or absence) unless the additional hours are reasonable. For a worker who is not a full-time employee, the maximum hours are the lesser of either 38 hours or the employee's ordinary hours of work in a week. The NES also entitles an employee to refuse a request or requirement to work additional hours if the hours are unreasonable. So, if an employee agrees, there is essentially no maximum limit on what an employee can work.

The NES and Fair Work Act 2009 states that the test of reasonable hours of work should consider various factors that provide significant room for argument between employers and employees.

Factors which determine what are reasonable working hours include:

- Risk to health and safety;
- An employee's personal circumstances, including family responsibilities;
- The needs of the workplace or enterprise;
- Entitlements to overtime payments, penalty rates or other compensation for working additional hours; notice given by the employer to work the additional hours;
- Notice given by the employee of their intention to refuse to work the additional hours;
- The usual patterns of work in the industry;
- The nature of the employee's role and the employee's level of responsibility;
- Whether the additional hours are in accordance with averaging provisions included in an award or agreement that is applicable to the employee;
- Any other relevant matter.

However, there is currently no fixed meaning of what reasonable additional hours may be, and this may vary on a case-by-case basis, making claims by employees difficult and expensive and very unlikely to be pursued (Carrett, 2023).

Given the above, it is not surprising that 40% of employed Australians routinely work more than 38 hours a week, with an average of 6.1 hours of unpaid overtime every week, and 10% of men routinely work more than 50 hours a week (Commonwealth of Australia 2023). In construction, hours worked are higher than the national average at around 40.5 hours per week, and 23% of construction employees regularly work more than 50 hours per week (Crook and Tessler 2021).

To accommodate industries like construction, where workloads can often fluctuate significantly due to varying and unpredictable project demands, the NES also sets out arrangements for averaging hours of work. However, the maximum averaging period is 26 weeks, and the average weekly hours over the period must not exceed 38 hours for a full-time employee, although an award or agreement can provide higher average weekly hours if those additional hours are considered reasonable. Under the general workplace protections provisions of the Fair Work Act 2009, it is unlawful for an employer to force (or try to force) an employee to make (or not make) an averaging arrangement. Where this can be proven, the Fair Work Ombudsman can initiate legal action against the employer.

5.2 The law relating to flexible work arrangements

In addition to demanding reasonable hours of work, employees in Australia are also entitled to request a change in their working arrangements to make them more flexible (hours, patterns and locations of work) under The Fair Work Act 2009 (FW Act).

Examples of flexible working arrangements covered by the FW Act include:

- Flexible start and finish times;
- Compressed working weeks (working more hours over fewer days);
- Part-time work;
- Casual work;
- Job sharing;
- Flexible rostering;
- Working from home or another location;
- Purchasing extra paid leave;
- Unpaid leave;
- Taking rostered days off as 2 half days;
- Time off in lieu:
- · Flexitime:
- Gradual increase or decrease in work hours;
- Changing start or finish times;
- · Splitting shifts;
- Remote working/telecommuting;
- Part-time and casual; unpaid leave;
- Gradual increase or reduction of work hours (for example, before or after parental leave or before retirement);
- Flexibility around breaks and when they are taken;
- Other modified work agreements that allow employees to work more hours in one part of an averaging period in return for more time off in another part of the same averaging period, etc.

The FW Act provides that employees who have worked with the same employer for at least 12 months can request flexible working arrangements if they:

- Are the parent, or have responsibility for the care of a child who is school-aged or younger;
- Are a carer (under the Carer Recognition Act 2010);
- Have a disability;
- Are 55 or older;
- Provide care or support to a member of their household or immediate family who requires care and support because of family or domestic violence;
- Are casual employees if there is a reasonable expectation of continuing work with the employer on a regular and systematic basis.

Recent amendments under the Fair Work Legislation Amendment (Secure Jobs, Better Pay) Act 2022, which apply from 6 June 2023, extend flexible working arrangements requests to pregnant employees or those who are experiencing family and domestic violence (this also includes workers whose family or household members are experiencing family violence). This will not apply if a state or territory law gives employees better entitlement to flexible working arrangements.

While the FW Act specifies the groups that can statutorily request flexible working arrangements, any employee can approach their employer with such a request and must receive a written response within 21 days, which outlines whether the request is approved or refused.

Employers can only refuse a request for flexible working on reasonable business grounds, which can include:

- If the requested arrangements are too costly;
- Other employees' working arrangements can't be changed to accommodate the request;
- It's impractical to change other employees' working arrangements or hire new employees to accommodate the request;
- The request would result in a significant loss of productivity or have a significant negative impact on customer service.

Recent amendments under the Fair Work Legislation Amendment (Secure Jobs, Better Pay) Act 2022, which apply from 6 June 2023, impose a greater requirement on employers to discuss a flexible working request with an employee and come to a genuine agreement, including consideration of alternative agreements. Employees can also apply to the Fair Work Commission (FWC) to resolve any dispute regarding a request for a flexible working arrangement in a similar manner to that provided in relation to unfair dismissal or general protections. The FWC also have a limited right to arbitrate, make binding orders in favour of workers where

employers fail to respond to requests and penalise those who breach such orders.

Recognising that many companies may struggle to implement these new flexibility provisions, the Fair Work Ombudsman provides a range of 'best practice' guidance for companies to follow (Fair Work Ombudsman 2023). Best practice employers are defined as those who:

- 1. Go beyond their minimum legal obligations and let all employees request flexible work arrangements, regardless of how long they have been employed and their personal circumstances;
- 2. Recognise different employee needs and adopt an individual approach which recognises that what works for one person might not work for another;
- 3. Have open conversations and effective communication with employees which build trust, help avoid confusion and uncertainty and help to manage expectations and encourage a supportive work environment;
- 4. Think creatively about flexibility initiatives that don't add cost;
- 5. Develop a flexible work policy which can help managers and employees understand how flexibility works (clear standardised processes for requests, responses and monitoring) and can create competitive advantage;
- 6. Give their managers and employees training and information about flexible work to help everyone understand how flexible work operates and encourages employees to discuss their needs with their manager;
- 7. Create a culture where employees feel supported in their family roles and comfortable discussing their flexibility needs;
- 8. Invest in technology to enable and support flexibility (providing laptops, tablets and other portable devices to employees, setting up secure access to work systems on smartphones and other personal devices, using video calls and virtual meeting software etc);
- 9. Communicate effectively by setting clear expectations so that employees understand what types of flexible work may be available and what it requires;
- 10. Support other employees to adjust to the changes in the workplace and be aware of any extra demands that their colleagues' flexible working arrangements create;
- 11. Implement trials of different arrangements, study their impacts and learn and improve over time;
- 12. Recognise that flexibility requirements may change over time and schedule regular reviews with employees so any difficulties can be dealt with early;

5.3 Healthy and reasonable working hours are becoming increasingly harder to police and enforce

Despite the provisions of the NES and Fair Work Act 2009, healthy and reasonable working hours are becoming harder to police and enforce due to the growth of flexible work practices and the use of technologies, which increasingly blur the boundaries between work and home life (Wooden et al. 2022). Cognisant of these trends, the Australian Senate Work and Care Committee Final Report (Commonwealth of Australia 2023) recently warned that this was adversely affecting workers' WLB and that Australia's lack of policy response was manifesting in a lack of labour supply, stressed workers and gender equality across its workforce. The report received widespread support from both Labor and Coalition senators, who made several key recommendations that are relevant to WLB. These include:

- The Fair Work Commission undertakes a review of standard working hours with a view to reduce the standard working week;
- The Australian Government undertake a four-day week trial based on the 100:80:100 model whereby employees retain 100 per cent of their salary while reducing their hours to 80 per cent while maintaining 100 per cent productivity. The trial should be implemented in diverse sectors and geographical locations and be monitored for its impact on productivity, health and wellbeing, workplace cultural change, gender equality and the distribution of unpaid care across genders;
- The Australian Government support a review by the FWC into current industrial awards to ensure employees have a 'right to say no' to extra hours with protection from negative consequences;
- The Australian Government request a review of the operation of the 38-hour working week set in the National Employment Standards and the extent and consequences of longer hours of work. The review should also consider stronger penalties for long hours and other possible ways to reduce them, including through the work, health and safety system, which requires employers to ensure safe working hours as a part of providing a safe workplace;
- The Australian Government increase penalties for employers who commit wage theft through, for example, unpaid additional hours of work and consider changes to the law that make these cases subject to criminal charges;
- The Australian Government supports a review by the Fair Work Commission of current industrial awards to require employers to ensure employees have predictable and stable rosters, give advance notice of

at least two weeks of rosters and roster changes (except in exceptional circumstances) and genuinely consider employee views about the impact of proposed roster changes and accommodate the needs of the employee;

- The mandatory annual reporting of companies with over 20,000 employees in Australia to the Fair Work Commission on workplace practices to ensure roster justice and flexible working arrangements;
- The mandatory collection of data by these companies of requests for roster changes and flexible working
 arrangements, as well as the percentage of changes to shifts initiated by the employer within one week of
 the shift taking place. The data should be provided in full to the Workplace Gender Equality Agency and
 published on the respective company's website;
- Development of a new statutory definition of casual employment that reflects the true nature of the employment relationship;
- Restriction of the use of low base hour contracts, which can be 'flexed up' without incurring any pay
 penalty for additional hours worked beyond the contract, and ensure permanent part-time employees
 have access to regular, predictable patterns and hours of work;
- Development of clearly delineated statutory definitions of part-time and full-time employment and that these definitions, as well as a definition of casual employment, be inserted into the Fair Work Act 2009;
- Consideration of mechanisms to fund and implement a pathway to reach the international best practice
 of 52 weeks of paid parental leave paid at least at the minimum full-time wage, with consideration given
 to encouraging employers to top up payments to full wage replacement.

5.4 Agreements in the Australian building and construction industry

The Fair Work Ombudsman (FWO) is now the workplace relations regulator responsible for enforcing the Fair Work Act for the building and construction industry. The Fair Work Legislation Amendment (Secure Jobs, Better Pay) Act 2022 also established the National Construction Industry Forum, which is a statutory advisory body for the building and construction industry, chaired by the Minister for Employment and Workplace Relations. Its members represent employees and employers in the building and construction industry and meet twice a year to provide advice on workplace relations, skills and training, safety, productivity, diversity and gender equity and industry and culture, etc.

In the Australian building and construction industry, professional and managerial employees are covered by individual employment contracts with their employers, the Fair Work Act 2009 and the NES. Waged employees are covered by the Building and Construction General On-Site Award 2020, the Fair Work Act 2009 and the NES, which collectively set minimum conditions of employment and entitlements relating to:

- Individual flexibility arrangements;
- Travel time allowances;
- Overtime and penalty rates;
- · Annual leave;
- Personal carers leave:
- Parental leave;
- Community service leave;
- Family and domestic violence leave;
- Living away from home allowances;
- Rest and recreation provisions.

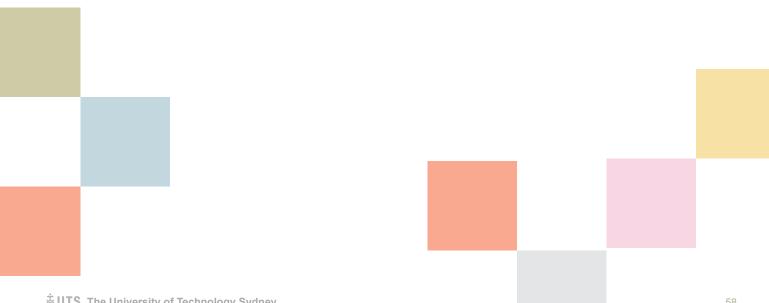
In the Building and Construction General On-Site Award, the maximum number of ordinary hours employees can be 'required' to work is 8 hours per day (inclusive of meal breaks) and 38 hours per week (averaged over a 20-day four-week cycle to allow for the accrual and taking of rostered days of), unless an employer asks them to work 'reasonable' extra hours overtime. Thus, the hours worked can be much higher and as discussed earlier, the reality is that building workers often have to work substantial amounts of overtime with a six-day (50-55+ hour) week being the norm in many parts of the industry plus occasional Sundays and short runs of 60-80+ hours per week not being uncommon when projects fall behind or towards the end of projects to get them finished on time. Although an employee may refuse to work overtime hours if they are unreasonable (as determined by the NES and Fair Work Act 2009 tests), the evidence presented in Chapter 6 indicates that this is rarely refused due to project pressures and cultural norms around presenteeism in the building and construction industry and letting the team down.

The Building and Construction General On-Site Award also dictates that 'ordinary hours' can be worked between 7am - 6pm on Monday to Friday (Civil construction shift workers can also work ordinary hours on a Saturday and Sunday) although an employer and their employees can agree to start work earlier than 7am, so long as the starting time is between 6am - 8am. All overtime worked beyond an employee's ordinary

working hours must be paid for at the rate of 150% of the ordinary hourly rate for the first 2 hours and 200% thereafter. However, in reality, in many companies all overtime is paid at 200%, and employees who work overtime on a Saturday must be given at least 3 hours of work and 4 hours on Sunday. If they don't work these hours, they still must be paid a number of minimum hours at overtime rates.

In line with the NES and FW Act, employees under the Award are also entitled to request individual flexibility arrangements. A key mechanism to achieve flexibility for construction workers has been the use of rostered days off (RDOs), which are one part of a number of EBA provisions already negotiated over a long period to accommodate the inconveniences of working in the industry, such as travel allowances etc. RDOs accumulate because an employee has worked extra unpaid hours that accumulate over a set period of time, which is then taken as an RDO. During ordinary working hours of 8 hours each day, public holidays and paid leave, 0.4 of each hour will accrue towards an RDO, and 7.6 hours will be paid. An employee will, therefore, accrue 7.6 hours towards an RDO each 19 days of ordinary hours worked. So, during a typical 4-week cycle of 20 days (5 days each week), an employee accumulates 1 paid RDO. Employees are entitled to 13 RDOs per year when they work a 20-day cycle continuously for 12 months. Accrued RDOs can be banked (not exceeding 5) and must be taken in accordance with a written roster fixed by the employer and any other flexible method that is agreed upon by the employer and the majority of that employer's employees and recorded in writing. Shift work is defined in different ways and attracts high penalty rates of pay. It must also be worked according to a roster that will provide rotation of shifts and ensure that no more than 8 shifts are worked in any 9 consecutive days.

While non-union companies negotiate non-union agreements with their workforce elected representatives based on the Award, flexibility arrangements can exceed the award in individual enterprise bargaining agreements (EBAs) negotiated between trade unions and employers via the enterprise bargaining process. Such agreements vary from firm to firm and typically include provisions for ordinary hours of work; overtime, minimum break periods between work periods to minimise fatigue (typically 10 hrs); RDOs (including rosters and banking arrangements); Overtime and rostering arrangements; time in lieu of payment for overtime; wellbeing programs; rest periods (smoko and lunch etc.); various forms of training (suicide awareness, asbestos and silica, workplace hazards etc.); counselling and employee assistance programs (family problems, drug and alcohol abuse, financial problems etc); various forms of flexibility and leave provisions (long service leave; parental leave, annual leave, family violence leave etc); productivity and site allowances etc. The standard CFMEU EBA template varies between states but currently includes a 36-hour week calendar written into the Agreement until 2026. Despite efforts by the CFMEU to impose a 9-day fortnight on the industry, the effort has been heavily resisted by an organised campaign of resistance by some medium-sized contractors and has largely failed, apart from a few contractors who have adopted this model. During this period of trying to negotiate a 9-day fortnight, a 5-day workweek trial was finalised in the Enterprise Bargaining Agreement between Roberts Co. and the CFMEU – the results of which are reviewed in Chapter 6 of this report. An increasing number of projects in NSW are being tendered based on a 5-day working week, and tendering on this basis provides an exemption to the 9-day fortnight in some union agreements. However, the Electrical Trades Union (ETU) has negotiated a separate agreement with major contractors, creating a variety of flexible working time arrangements across the industry, including a 9-day fortnight, although the cost, time and WLB of this emerging array of work time modifications and flexibility arrangements is unknown and a cause for concern among some industry stakeholders (Guzman 2020, 2022).



6. THE 5-DAY WEEK AND WLB – WHAT CONSTRUCTION INDUSTRY RESEARCH SAYS

This section presents a chronological review of key international research into WLB in the building and construction industry. It reviews research relating to the current state of WLB, its causes and consequences and the potential impact of WLB improvement initiatives such as the hard and soft 5-day working week. Australian studies have been prominent and formative in advancing the international WLB debate, and many have been published in high-quality publications.

6.1 A chronological review of WLB research in the construction industry

This section summarises key research studies which have shaped the WLB debate in the building and construction industry. The chronological nature of this detailed literature review is important because it demonstrates how research in this important area has evolved over the last twenty years or so.

This review focuses on internationally respected books, peer-reviewed journal and conference publications and high-quality research-based reports. The peer-review process provides researchers with the best assurance that international experts in the field have scrutinised the published research results as valid and/ or reliable. However, peer-reviewed journal publications vary greatly in quality, and the peer-review process itself is subject to many well-known limitations which are difficult to control. Therefore, we have focused on the most highly cited publications, and if we think that a non-peer-reviewed source is important, we have also included it and pointed that out.

We have also sought to highlight any methodological limitations in existing research, considering issues such as sample size and how, where and when the data was collected and analysed. These details are often overlooked but are critically important to appreciate in order to avoid the risk of research results being incorrectly interpreted, generalised and used for policy and decision-making. Decision-making about WLB interventions, particularly a 5-day working week based on unreliable evidence, is potentially dangerous. It can do more harm than good to the lives of millions of people who work in the building and construction industry and its extensive supply chain and the families and communities linked to them.

6.1.1 2002

In one of the earliest research projects on WLB, Lingard and Sublet (2002) undertook a survey (sample = 182) of professional civil engineers working in the Australian construction industry. They found that the single most important determining factor in marital or relationship quality is the number of hours they work each week. They were among the first to argue that the implementation of WLB initiatives by engineering organisations may benefit employees, assuming that both engineers and their employers can break from the socially constructed norms of rigid, long work hours that prevail in the Australian construction industry.

6.1.1 2004

A survey by Lingard and Francis (2004) (sample = 281) explored the work-life conflict experiences of office and site-based employees within one of Australia's leading construction contracting organisations, based in Sydney. They showed that respondents worked the modal average number of hours, 55.2 hrs, with a standard deviation of 9.46 hrs. Male employees in site-based roles reported significantly higher levels of work-to-family conflict and emotional exhaustion than male employees who worked in regional or head office roles. Women's tendency to work in administrative, secretarial or support services roles typically meant fewer work-hour demands, and it was concluded that the experiences of site-based construction employees, particularly men, warrant further attention to explore the sources of work-life imbalance and burnout.

6.1.2 2006

Francis et al.'s (2006) research into work-family conflict in the Australian construction industry was built on an earlier web-based quantitative study of private and public sector construction employees for the Construction Industry Institute. Interviews were undertaken with 31 participants (24 construction industry employees, 7 domestic partners) with a mean age of 45.6 years from the public sector (17 employees) and private sector (7 employees), 24 of which were male and 7 female. Their work showed that long working hours, a culture perceived to de-value timeout for family commitments, and a lack of personal control over work arrangements contributed to high levels of employee burnout, work-to-family conflict and deterioration of personal relationships. Recognising the bi-directional nature of WLB, no evidence was found of any family issues impacting on work commitments.

It was concluded that long hours and inflexible working conditions can cause stress and burnout in employees and negatively affect personal relationships. It was also reported that responsibility for daily family functioning is frequently disproportionately borne by the female domestic partner. While many males expressed the desire to assist more with home life, they felt guilty and unable to do so due to heavy work responsibilities. Persistent problems for couples trying to manage conflicting work and family demands were raised, and the authors note the importance of tailoring interventions to suit the life stages of different employees because employees of various ages and generations experience different problems in balancing work and non-work life and have different preferences for organisational work-life balance initiatives. The findings also confirm the findings of previous studies on adaptive strategies people utilise to balance work and family life. These include: 'scaling back' strategies, such as 'placing limits,' 'trading off', and adopting a 'one job, one career' partnership. They suggest that this privatization of interventions to address work-family issues has become institutionalized in the construction industry. They argue for organisations and policymakers to develop public solutions to the work-family issue to challenge this status quo and for individuals to take greater responsibility for their WLB and well-being.

Francis et al. (2006) recommend various organisational and individual strategies to help manage work-family conflicts in the building and construction industry. At an organisational level, these include creating a culture that prevents work-family conflicts from the top down, providing work-family sensitivity training for managers, and limiting work hours and weekend work. At an individual level, other strategies include:

- Discussing what you value as a family;
- Maintaining good communication at home (for example, discussing sharing of family responsibilities) and work (for example, discussing hours and work responsibilities);
- Planning family time and time to deal with family and personal health issues and family finances;
- · Planning and enjoying regular time with partners, children and friends;
- Maintaining daily family routines, for example, mealtimes, exercise with partner/children, homework; maintaining one's own physical, mental and social well-being;
- Being realistic about work hours, work commitments and career goals;
- Appreciating other family members, what they are achieving and the pressures they might face.

6.1.3 2007

Lingard and Francis (2007) undertook a survey (sample = 202) of work-to-family and family-to-work conflict in the lives of Australian construction professionals and managers. Using pre-existing psychometric scales, they found that time and strain-based issues in the workplace were significant antecedents of work-to-family conflict and a significant predictor of the quality of relationships within families. Their results confirm the importance of organisational practices for employees' work-family conflict to safeguard male or female employees from adverse family outcomes associated with long work hours and strain-based job demands. However, family-to-work conflict was not found to be significantly predicted by family variables other than tension in the marital relationship. In other words, respondents' family life is highly susceptible to negative interference from work, but their work-life is not significantly affected by family life. This finding was inconsistent with the results of earlier research outside construction. Lingard and Francis postulated that this could be explained by the predominantly male sample (88.1%) and that male employees might be better able to isolate their work role performance from family impacts than female employees because of the traditional gendered division of domestic labour. Thus, they argued, it is likely that demands in the family domain would be more likely to affect women's work performance.

6.1.4 2009

Turner and Francis (2009) explored employees' experiences of WLB during the planning and design stage of one Australian Infrastructure Alliance project in Queensland and their expectations for managing WLB during the construction phase. Using focus groups with 43 professional and white-collar employees, the authors found that project culture, project resourcing and the schedule demands of the project's construction stage were barriers for WLB. However, participants also believed that the "project alliance" delivery model, flexibility of working hours and the project management team's support for WLB would facilitate WLB in the project.

According to Lingard and Francis (2009), the negative effects of poor WLB in the building and construction industry can be broadly categorised into three main areas, although isolating the exact impact of WLB on these outcomes is complex when considered alongside the many other potential causes of these problems:

Health-related outcomes:

- Poor physical health/fitness
- Poor mental health/psychological strain
- Depression
- Suicidal ideation
- Anxiety
- Burnout
- Stress (work-related)
- Stress (family/friend related)
- Poor eating
- Lower fitness
- Drink more alcohol
- Seek medication
- Seek counselling or psychological services
- Taking more drugs

Non-work-related outcomes:

- Lower life satisfaction
- Strained friendships
- Strained family relationships
- Strained spouse/marital relationships
- Anger and loss of temper
- Impatience and intolerance
- Less social life and leisure
- Missing important family events
- Extra costs (like childcare)
- Spouse suffers (has to be the main carer, can't work etc.)

Work-related outcomes:

- Mistakes and rework
- Lower job satisfaction
- Lower job commitment
- Lower job performance/success
- Lower productivity
- Absenteeism
- Conflict and aggression
- Less cohesion and teamwork
- Less trust
- Less cooperation (discretionary effort)
- Lower attention to quality
- Lower attention to safety
- Intention to leave and find another job in another industry
- Intention to leave and find another job in the same industry

Unpublished survey research (sample = 201) into 'organisational support' for WLB for civil engineering professionals in Lingard and Francis (2009) showed that more could be done by organisations at minimal cost to support WLB, with 20 per cent of respondents unsure of what support their organisation had to offer. While around 30 per cent of respondents worked in organisations with employee assistance programmes and additional leave provisions for school holidays, many other WLB initiatives, such as assistance with childcare, health and wellbeing programmes and access to referral services, were not widely available. Female respondents had more access to part-time work opportunities and parental leave than male respondents. However, men showed significantly less interest in part-time work opportunities and services relating to the care of children and other dependents (such as childcare assistance, referral services and maternity/ paternity leave). Although a larger portion of women (94%) were interested in flexible work hours, over 80% of men also wanted flexible work hours.

6.1.5 2010

Although not specifically focused on WLB, Horner's (2010) analysis of productivity in the construction industry is relevant to this study because it found that lengthening working hours per day is one of the best ways to reduce labour productivity. When overtime is worked continuously for four weeks or more, every one-hour

increase in the working week above 40 hours causes a 1% loss of productivity. So, according to Horner et al. (2010), over 4 weeks, a 55-hour week is likely to cause a 15% reduction in productivity compared to a 40-hour week.

6.1.6 2016

Young et al. (2016) used a questionnaire survey to investigate the working hours, work-life balance and mental health of 100 construction workers in Hong Kong (without Standard Working Hour legislation). Results showed that these participants had longer working hours than many other workers in Hong Kong (54 hours/week, 20% of which were between 61 and 70 hours). However, the WLB of construction workers, such as public sector doctors, was considered acceptable and not as poor as other long working-hour sectors in Hong Kong. Overall, although some weak associations were reported between long working hours, poor WLB and poor mental health conditions, the research concluded that there was insufficient evidence to show construction workers in Hong Kong have poor WLB and poor mental health. There was also insufficient evidence to show the high risk of occupational injuries was related to poor WLB and poor mental health.

6.1.7 2018

A report by Downey and Stough (2018), which forms the basis of the Draft Culture Standard developed by the Australian Construction Industry Culture Taskforce, reported the results of a state-wide survey of construction professionals' mental health conducted between May and June 2018. Based on a sample of 683 respondents (all professional and management roles) from 8 major construction/infrastructure companies, the research reported that 64% of respondents worked over 50 hours per week (47% of respondents 50- 60 hours per week, 17% over 60 hours per week). This was far higher than 19% for the 'normal' working population, although less than medical doctors at 81%. Those working over 60 hours per week included: Project Directors (100%), Project Engineers (86%), Project Managers (82%), Senior Project Engineers (83%), and Site Engineers (82%). This survey used a single question to assess the respondent's satisfaction with their WLB: "How successful do you feel in balancing your paid work and family life?" 59% of the respondents were unsatisfied with their WLB, 24% were satisfied, and 17% were neither satisfied nor unsatisfied. This level of dissatisfaction exceeded normal working population values by 39% and was 10% higher than the medical doctor comparison population.

Holden and Sunindijo's (2018) survey of 89 professional employees of a single medium-sized construction organisation in Sydney, Australia, showed that WLB was adversely affected by being constantly available through workplace information and communication technologies. Commute times were not associated with poor WLB, and they concluded that respondents were generally happy with their work (despite having a poor WLB). By revealing a gap between 'offered' and 'practised' flexibility arrangements, their recommendations emphasise that WLB initiatives must be made known to all employees and supported by senior managers and those at the project level so that employees are comfortable using them.

Bowen et al. (2018) examined the relationship between work contact, work-family conflict, psychological distress and sleep problems experienced by South African construction professionals (architects, engineers, quantity surveyors, and project and construction managers). A survey of 630 professionals revealed a positive but complex inter-relationship between the number of work hours and levels of work-family conflict, psychological distress and sleep problems. It was found that job pressure is strongly associated with work contact, work-family conflict and psychological distress. However, the impact was found to be weaker amongst those professionals with greater job autonomy and control. Finally, it was found that while female professionals reported fewer working hours than males, they reported experiencing greater job pressure and less job control due to their relatively lower positions.

Kumar and Chaturvedi's (2018) analysis of 100 papers and interviews with 22 women in the Indian construction industry found that the main organisational factors associated with poor WLB were in order of priority: long and unpredictable work hours; tight project deadlines and high workloads; low salary related to hours worked; harsh work environment; project-based nature of work; health and safety issues; organisational norms and culture; and job insecurity. The results also found that women's WLB was adversely affected by high levels of bullying and sexual harassment, disrespectful language, gender discrimination, physical and mental exhaustion, and low levels of work-life quality.

6.1.8 2019

Sui Pheng et al. (2019) explored the work-life conflict of Millennials working in the Singaporean Construction industry via a survey of 44 Korean professionals and 33 Singaporean professionals and interviews with 4

professionals (2 in each country). Findings claim a positive relationship between high work demands and Work-Life Conflict. High work demand was considered unavoidable due to tight project deadlines and high workload, and some interviewees said that the policies implemented by their organisations had an adverse impact on their WLB. No significant influence of life-to-work conflict was found. However, work-life boundary-spanning initiatives such as family dance events and social events were found to be important in overcoming the negative effect of Work-Life Conflict.

Kotera et al. (2019) explored the relationship between the WLB of UK construction workers and their mental health via a survey of 144 workers within major government-owned highway organisations in England and Wales (127 males and 17 females). They found that those who worked in organisations that supported WLB felt more psychologically safe in the workplace and had better mental health. Among different work schedules, daytime workers and those less able to negotiate their preferred working schedule suffered the highest levels of poor mental health.

A UK study by Hanna and Markam (2019) in the UK construction industry linked health and well-being problems in the construction industry to a culture of 'working equals earning' in construction trades created by the subcontracting structure of the industry and high rates of self-employment and independent contracting (in Australia, the construction has the highest rate of independent contracting of any sector). This means that people must work long hours to earn the high salaries that the sector is known for, sacrificing time with family and spending time on their own health and wellbeing. 'Carrying on' at all costs, despite exhaustion or health problems, was described as the norm, and this was exacerbated by the limited working life many tradespeople face due to the physical toll on their bodies. Tradespeople working for small contractors on small jobs were seen as most vulnerable to these sorts of pressures.

6.1.9 2020

Apraku et al. (2020) undertook a survey of 120 professionals working in small and medium construction firms in Ghana. The authors claim there is a relationship between construction workers' WLB and self-perceived productivity.

Bowen and Zhang's (2020) survey of 695 construction professionals in South Africa indicated that construction professionals' experiences of work-to-family conflict are directly linked to work pressure and lack of job autonomy and schedule control. They also found that work-family conflict can be created by after-hours work-related contact. In contrast, respondents' experiences of family-to-work conflict were predicted by household tasks and childcare demands. Partner support is important in alleviating family-to-work conflict. However, both work-to-family conflict and family-to-work conflict were also associated with sleep problems and alcohol use. This study highlights the importance of designing jobs with WLB in mind and limiting boundary-spanning commitments, which can exacerbate excessive work-family conflict.

Holdsworth et al. (2020) surveyed 168 and interviewed 43 female trades and semi-skilled workers in the Australian construction industry. The non-peer-reviewed results indicated that participants experienced a moderate level of work-family conflict, which was directly related to the number of hours worked. Results also showed that the likelihood of work-family conflict increased as work hours and shift work increased. The small number of respondents (18%) who reported good work-life balance attributed this to the regular working hours negotiated in their EBA. However, most reported that their work often led to exhaustion, which meant they were unable to perform household duties like cooking, cleaning, and shopping. Some reported having no time at all for personal relaxation, and work-family conflict was found to increase according to their level of caring responsibility. This meant that work-family conflict was higher for women who lived with their partner and children and for those who were single parents living with children. Many women living with children emphasised that they would be unable to perform their work role without the support of their partner or friends. However, WFC was also high for the 34.1% of participants who lived alone. Many women maintained that being single and childless was the only way they were able to manage their heavy workload.

Galea et al. (2020) investigated how entrenched gendered rules and practices in the industry affect the well-being of men and women in professional roles. This ethnographic research took place over a period of eight months and included document analysis of 69 company policies; interviews with 21 senior female and male business leaders; participant observation of 14 company events (e.g. diversity training, graduate assessment centres, mentoring initiatives); onsite shadowing of 44 men and women construction professionals for two to five days; and 61 interviews (37 men and 24 women) with project management personnel across six major construction sites operated by two multinational contractors. It found that men's and women's well-being are, at least in part, negatively affected by workplace characteristics frequently attributed to masculine workplace norms such as presenteeism, total availability, control, reliability and complete devotion to work,

regardless of personal costs. These norms and the formal and informal workplace rules and practices which support them impact negatively on employee well-being and result in work-to-family conflict, with substantial relationship stress for the participants and their loved ones, often leading to divorce and marriage breakdown. These negative implications affect both men and women. However, women face unique challenges such as 'fitting in', negotiating primary care responsibilities and sexual harassment, discrimination and workplace isolation, which result in higher work-life conflict and stress, burnout and other mental health issues. These experiences take their toll, with women leaving the construction professions considerably faster than their male colleagues.

Tijani et al. (2020) conducted a systematic literature review of 44 internationally peer-reviewed papers on construction WLB since 2001. Within this analysis, the authors highlight a widespread consensus that poor WLB is a problem in the international building and construction industry (including Australia). There is also consensus that poor WLB in the building and construction industry poses significant risks to people's physical and mental health and well-being, lower life satisfaction, family and social relationships, workplace productivity, safety, quality of work and workplace relationships and engagement. Conversely, good WLB is widely seen to be associated with numerous individual and organisational benefits such as reduced risk of stress and burnout, better health and well-being, better family functioning and marital satisfaction, and higher levels of job satisfaction and workplace engagement, commitment, motivation, retention and productivity.

The research they reviewed has linked poor WLB to a variety of construction industry-specific characteristics, such as:

- High task complexity, which can create significant workplace stressors which can spill over into home life;
- High levels of uncertainty, which makes work planning difficult, unexpected problems inevitable and time and cost overruns common – putting pressure on people to do what it takes to get the job done;
- Unrealistic project programs and cost pressures, coupled with competitive tendering and a risk-shifting culture, which cut margins to the bone, placing people under intense pressure and making flexible working difficult to implement;
- The boom-bust cycle of construction which creates uneven workloads of high-intensity work and long hours interspersed by periods of little or no work;
- A significant grey and informal economy and high levels of casualisation and sham contracting which lead
 to unfair and unscrupulous workplace practices such as not paying wages and entitlements, especially to
 marginalised workers;
- Poor physical working conditions (such as unsafe sites and lack of site amenities) which cause negative workplace behaviours, feelings and stressors to flow over into family relationships;
- Project-based working, which often involves a lot of travelling and time away from home and family;
- Highly masculinised work cultures, which are characterised by high levels of presenteeism, bullying
 and other behaviours and work patterns which expose people to high levels of psychological risk and
 discourage the reporting of mental health problems associated with poor WLB;
- Skills and labour shortages which lead to multi-tasking and long hours of work;
- An ageing workforce which results in a loss of corporate experience and the premature promotion of inexperienced young people into positions of high responsibility which can exceed their capability;
- Unhealthy and normalised workplace norms and practices that normalise long daily work hours and weekend working, meaning people don't have a sufficient break from work and miss out on leisure activities with their family and friends who work in other industries.

However, Tijani et al. (2020) also caution that current WLB research is fragmented, limited and embryonic and suffers numerous methodological limitations, which means that findings are often unrepresentative of the construction industry's workforce and organisational diversity. For example, sample sizes are often very small, and the vast majority of studies have relied on surveys (69%), while far fewer studies used case studies (10%), interviews (10%) and mixed methods (12%). They also found that the majority of WLB studies have focused on construction professionals (84%) rather than tradespeople. Other important industry groups, such as young people, are largely missing from the data. Importantly, they also note that studies argue that the impact of work on WLB is mediated by personal characteristics such as gender and age. However, they also caution that such relationships are complex and that evidence to support such claims is inconclusive. In summary, Tijani et al. (2020) conclude that WLB has not undergone any extensive empirical scrutiny in the building and construction industry and that more larger-scale studies and nuanced research are needed which consider the fully individual and organisational diversity of the industry.

6.1.10 2021

A recent non-peer-reviewed report by Crook and Tessler (2021) for the Construction Industry Taskforce in

Australia focused on the costs of the industry's relatively high levels of work-related injuries and fatalities, its low levels of well-being and high levels of illness and its cultural adherence to rigid work practices and long work hours. Drawing on previous research, the estimated total productivity cost associated with employees consistently working overtime was estimated to be \$708 million in FY18. Crook and Tessler (2021) argue that these long-term costs far outweigh the short-term savings of working long hours and are associated with many negative outcomes for those working in the construction industry, such as increased absenteeism, physical and mental fatigue, increased injury and accidents; reduced supervision effectiveness, low morale; increased error and omission; reduced quality of work; increased staff turnover and reduced productivity (taking into account potential benefits such as maximising equipment utilisation, creating float to catch up on lost time, taking advantage of good weather and reducing skills shortages due to increased wages).

6.1.11 2022

Recently, Lingard and Turner (2022) reported the results of 23 interviews with men and women from across the construction industry workforce (9 client and contractor executives and 8 white-collar and 6 blue-collar workers on one large infrastructure project). They aimed to understand the way that project-based workers experience long hours, the factors contributing to the long-hours culture, and the factors motivating the 'Culture in Construction Initiative' to reduce work hours in the Australian construction industry. The Culture in Construction Initiative is a 'draft Culture Standard' developed by the Construction Industry Culture Taskforce (CICT), a collaboration established in 2018 between the construction industry, the NSW and Victorian Governments and academia. The 'draft Culture Standard' seeks to address three main cultural issues that are argued to be affecting the construction industry's performance: excessive work hours and resulting fatigue, poor health and well-being, and lack of workforce diversity. The Draft Culture Standard proposes that construction organisations ensure that all workers work 50 hrs or less per week and no workers work over 55 hr per week. Sites are also required to operate from Monday to Friday unless they can demonstrate why Monday-to-Friday work is not feasible and ensure all workers are working a maximum of five days per week. Firms will also be required to develop a flexibility plan for their project and report on performance against this plan. Healthy project programming is also needed, considering health risk mitigations, effectively managing workload pressures and ensuring sufficient recovery opportunities. The Culture Standard is proposed to be implemented on public sector projects via the procurement process within each Australian jurisdiction. This will involve clients prioritising the implementation of the Culture Standard early in business case development and highlighting this as part of the request for tenders. Contractors will also be required to report on how they will achieve the requirements of the Culture Standard as part of their tender material, which will then be part of the shortlisting and selection of the successful tenderer for the project.

Lingard and Turner's (2022) research reports that:

- Unrealistic project timelines, unfair risk allocation for delays, penal liquidated damages, fixed price contracts and competitive tendering were identified as major contributors to long hours in project-based construction work;
- There is a difference in experience and preference for long work hours between blue-collared workers who are paid a weekly wage and white-collared workers who receive a monthly salary. Financial concerns (such as loss of overtime) are a key factor shaping blue-collar workers' acceptance of working long hours and weekends. In contrast, white-collar workers are generally supportive of lower work hours because their pay is not linked to time worked;
- White-collar workers described an expectation that they are constantly available for work, even during company-sponsored 'mental health' days away from work. They also described highly unpredictable work hours, which could be changed at any time with little notice, flexibility arrangements being used by employers to their own ends and that short-term periods of relief from work intensity are often nullified by adjustments that are made to the project schedule;
- Both blue-collar and white-collar project workers regularly forego participation in family activities because
 of their work schedules. While some participants do this out of choice to pursue career opportunities or
 maximise pay, others feel that they have no choice and are concerned about the effect on their family
 members and relationships;
- It is unclear what the financial impacts of work time adjustments are on different cohort groups at an
 individual level, the extent to which a reduction in working time is achievable with no reduction in pay and
 whether some workers may be willing to sacrifice a portion of their wage for a reduction in work hours;
- At a project level, there was uncertainty about the impacts of changing the working week, with some client
 interviewees believing that reducing work hours (particularly cutting Saturday work) would increase project
 durations. Others argued it could increase productivity and encourage more women into the industry;
- Male participants in the study explained how their domestic partners take exclusive responsibility for caring and family work, enabling them to make an unyielding commitment to project-based work. This

appeared to shape the way that families organised their work and family time and reinforced a highly gendered division of labour within households;

• This is likely to be problematic for female workers in project roles who are less likely to have support at home and may have to choose between their careers and having a family. Female construction professionals also described being affected by gender stereotypes and being concerned about how they will be able to combine parenthood and caring with a career in the construction industry.

6.1.12 2024

The Building Commission NSW (2024) recently released its report on the challenges women face working in the Australian state of NSW's construction industry. Based on feedback from 1,792 survey respondents, 36 individual interviews, and 9 focus groups with large, medium and small firms, the report found that:

- In terms of work-life balance 58% of people in in medium and small construction companies and 74% in large construction companies believe they must choose between their careers and their personal lives.
 Only 44% of respondents – male and female alike – find it easy to manage the demands of their work and personal or family life.
- In terms of long hours Men are more likely to work over 50 hours per week than women (39% of men and 31% of women in large firms and 32% of men and 14% of women in medium and small firms). However, women are more likely to work between 40 to 49 hours a week (40% of men and 43% of women in large firms and 45% of men and 49% of women in medium firms)
- In terms of leaving the industry the most significant reasons for both men and women were poor WLB
 alongside long or inconvenient hours of work. 64% of women who have left the industry said that if
 positive changes occurred, they would be open to returning.
- In terms of flexibility, large construction firms are significantly more likely to provide a greater degree of flexibility in terms of working hours, with initiatives that include job-sharing, part-time work, and flexible hours.
- A 6-day work week remains a common expectation in many workplaces, which commonly represents
 a significant barrier to a healthy work-life balance. However, for many firms, the idea of a 5-day week
 is considered unrealistic due to factors such as time and resource constraints, tender and project
 requirements, and staff working hourly rates.

Recent research released by Lingard et al. (2024), funded by the Australian Constructors Association and the NSW and Victorian Government's Construction Industry Culture Task Force, studied five pilot projects trialling the CICT's Draft Culture Standard.

The results are based on 158 interviews and a survey of 148 workers (74% were waged workers). The complete survey instrument (33 questions) was administered on 2 projects, and a shorter version of the survey was administered on a third project. Interview data was collected in two waves of interviews at four of the Pilot Projects and in a single wave of interviews at the fifth Pilot Project (due to a later commencement date). In addition, one wave of survey data was collected at three of the Pilot Projects. Of the interviews, 66 (42%) were undertaken with women working at the Pilot Projects. The majority of survey respondents (n=130, 90%) were men.

The five Pilot Projects (two of which were transport infrastructure projects) adopted different work schedules based on project circumstances and characteristics:

- Project 1: This project's work hours involve working a 10-day fortnight, with work being undertaken on Saturday every other week when there is an RDO on Monday. Site-based workers typically work 10
- Project 2: This project works 11.5 to 12-hour days between Monday and Friday, and does not work on Saturdays.
- Project 3: This project works 10 to 11-hour days between Monday and Friday, and do not work on Saturdays.
- Project 4: This project's normal work schedule includes 10 to 11-hour days between Monday and Thursday and 7.5 hours on Friday. The site does not typically work Saturdays and workers also have every second Monday (an RDO) off.
- Project 5: This project implemented a day shift roster of five 11-hour days (Monday to Friday from 7am to 6pm). However, the site remains open on Saturdays between 8am and 1pm, and workers are able to work on Saturdays if they choose to do so. Workers can also choose to undertake 10 days of night work per month. The maximum number of nights that can be worked a week is three, and the night shift does not occur on Wednesday or Friday or during weekends

Key findings reported include:

- There was majority support (84% salaried, 61% waged) for the 5-day week across all projects. The most common reasons for supporting a 5-day week were more time and better synchronisation with family, friends and leisure activities and better rest and recovery for the week ahead;
- 27% of waged workers (mostly young workers in the early stages of their careers) indicated a preference to work a 6-day week, and one pilot retained Saturday work and made it optional for workers.
- 53% of survey respondents worked between 46-55 hrs per week, with just over 20% working 51-55 hrs, just over 5% working 56-60 and 5% working 61-65 hrs.
- High levels of compression (such as 12-hour shifts) can result in higher levels of work demand and poorer work-life balance and negatively affect family life and time for self-care (exercise, relaxation, etc). It's not clear how much of an issue this was.
- 55% of salaried respondents preferred to work less hours.
- 52% of waged workers preferred to work Culture Standard hours (50 hrs or less a week). 27% of aged workers said they wanted to work more hours.
- Some waged workers (not clear how many) were initially concerned about reductions in pay, but many later argued that this was minimal and outweighed by the benefits of spending more time with their family
- There was a common belief that productivity is not adversely affected by implementing the Culture Standard – due to lower productivity on Saturdays and higher productivity during the week due to a healthier, more recovered and satisfied workforce.
- Participants in all five pilot projects were able to negotiate time off work if they needed to attend to personal matters.
- No findings were reported about whether a shorter working week increased female participation, retention
 or satisfaction. However, all pilot projects included a mentoring program and subcontract respect policy
 for women. Women indicated that they "mostly feel respected and accepted in the pilot study projects",
 although it is unclear what 'mostly' means. Site-based women reported banter and behaviour that was
 "sometimes sexist or inappropriate" (again undefined).
- The Culture Standard requires firms to implement programs that support mental health, safety, and well-being. While participants across all projects reported their health and well-being were well-supported and some project participants reported less stress than on previous projects, those projects with high levels of compression reported higher work intensity and stress as they struggled to fit six days on work into five days.

6.2 A chronological review of 5-day week research in the construction industry

It is clear from previous sections that it is very difficult, if not impossible, to isolate and explain the WLB impacts of any one specific initiative, such as a 5-day week. This is because of the inherent complexity and contextual nature of the WLB concept and because interventions such as a shorter working week are often used in combination with other strategies, which can undermine or enhance their effectiveness in individual, organisational settings. Therefore, one strategy may work in one organisation but not in another. The same applies to different people and different projects. Acknowledging these complexities and limitations, the following section chronologically reviews relevant construction industry research into the impacts on WLB of adjusted work schedules, particularly the 5-day working week.

6.2.1 2006

Townsend et al.'s (2006) Australian study is one of the earliest studies into working time arrangements and WLB in the building and construction industry. The research is based on a qualitative examination of work hours and WLB on two infrastructure alliance projects in Queensland:

- The first project began operations with an industry-standard 6-day working week. It shifted to a compressed 5-day working week with waged employees changing from a 10.5-hour day to an 11.5-hour day to compensate for the loss of income with no Saturday work. Salaried staff (engineers, site manager) did not have a formalised change in daily working hours but did shift to the 5-day working week. Two other work-life balance changes in this project were not considered relevant to the analysis of working hours.
- The second project began operations with a standard 5-day working week but, after four months, reverted
 to the industry standard 6-day working week because of pressure from waged staff who were unable
 to make up earnings lost from not working on Saturday hours through the week. Labour market and
 timeframe pressures also began to emerge when workers started leaving this project to work on an
 adjacent 6-day week construction project to increase their income.

Data was collected via interviews with employees at all levels of both case organisations, which covered a range of work and non-work issues. The sample size and structure were not reported. Findings indicate that there are three main levels of control that can be exerted to improve WLB in the industry. WLB interventions should happen at all three levels, and employees should be consulted in determining WLB policies:

- 1. Top-tier strategic decisions implemented through contracts and tenders driven by industry-wide commitment to improved WLB and state regulation of contracts;
- 2. Second-tier workplace management implemented through EBAs and WLB initiatives such as flexible working arrangements for all employees;
- 3. Third-tier employee-driven actions, which ensure they use WLB initiatives offered and are able to resist norms and peer pressures which can undermine the take-up of such initiatives.

Townsend et al. (2006a) present the research results into the managerial and employee challenges of implementing a standard 5-day working week within the construction industry in Australia. Data was collected using interviews from a sample of 16 employees (10 salaried, 6 waged) on one large infrastructure alliance project in Queensland. This is presumably the second site in their previous paper (Townsend 2006), although this is unclear.

As reported above, in Townsend (2006), the alliance project fell behind schedule due to losing approximately one-third of its waged workforce to another 6-day site that was opened nearby. This led to the management group reverting back to the industry standard six-day working week while preserving other WLB initiatives for the workforce, such as a roster system for the salaried staff, which meant that salaried staff would not be required to attend every Saturday but one Saturday in four. It is important to note that the reverted six-day working week was not made compulsory for waged staff. However, most waged employees elected to work Saturdays to boost their earnings.

The results of this project demonstrate that waged and salaried employees are affected differently by changes to work schedules to shorten the working week. There were mixed responses from waged employees, with most preferring a compressed working week, which allows them recovery time and time with family on the weekends while maintaining wage levels due to overtime penalty rates during the week. The salaried employees were more supportive of a five-day week, with most speaking of the benefits it provided them and their families without any loss of pay. Salaried employees within this worksite reported that they regularly work more than 10 hours a day, sometimes more than 12 hours a day. Interview quotations indicate that this had a significant negative impact on their physical and mental health and personal, marital and family relationships outside work. While a 5-day week does not shorten these hours and possibly lengthen them, it did provide time off with families on the weekend and a longer break between consecutive working weeks to help them recover.

6.2.2 2007

Lingard et al. (2007) describe the post hoc evaluation of a compressed work week in a single infrastructure project alliance, which involved upgrading the existing Wivenhoe Dam in Queensland, Australia. This is presumably the first case study site on Townsend's (2006) previous paper above since it involved reducing the length of the working week to 5 days but increasing the length of the working day to 11.5 hrs a day for 5 days (10.5 hrs per day in winter). The compressed work week was introduced part-way through the project's construction phase. At the commencement of the construction project, the site was operating on a 58-hour week spread over 6 days. This comprised five 10-hr days (Monday to Friday) plus an 8-hr day on Saturday. The research project commenced after the compressed work week had already been implemented, resulting in a post hoc evaluation because data could not be collected before its introduction. The authors recognised this as a methodological weakness and threat to the internal validity of the evaluation and, to overcome this problem, used a control group of employees from one of the alliance partners on another project who had not participated in the compressed work week (presumably the researchers assumed that this represented 'normal' WLB in the industry – at least in an alliance context). Data was collected via a face-to-face survey of 42 alliance employees (23 waged and 19 salaried). The survey was designed to evaluate employees' reactions to the move from a 6-day to a 5-day week and to assess respondents' well-being, satisfaction with work-life balance, and perceptions of work-life conflict. No control group members completed the survey. Also, 25 people were interviewed (19 employees at the Wivenhoe site and 6 employees from the control group.

The results again reveal a difference in responses between waged and salaried employees. While both groups of employees were reported to support the introduction of the compressed work week, waged employees expressed concerns about the maintenance of their income since they were paid by the hour.

In contrast salaried employees are not paid per hour and are required to perform significant amounts of unpaid overtime, often with little warning. Thus, salaried employees were more likely to support a 5-day week than wage employees. Despite these concerns, the researchers report that the compressed work week was 'very successful' in improving employees' work-life balance, reporting several benefits, including increased physical and psychological well-being, greater motivation, improved productivity, increased job commitment, and increased involvement in home/family activities. They also report that the change to a 5-day week did not hinder the attainment of objectives in other key result areas of the project. However, it was concluded that more research is needed to explore ways work-life balance can be improved among blue-collar site workers without loss of income, such as pay based upon production rather than time spent on site.

6.2.3 2008

Lingard et al. (2008) studied four Australian alliance infrastructure projects that had implemented altered working time arrangements (dam, road, water treatment). Presumably, some of these alliance projects are the same as those studied above (Townsend et al. 2006, 2006a, Lingard et al. 2007):

- Project 1 (Road project) A rotating monthly cycle of compressed five-day working weeks of two 'two-day' weekends, one 'one-day' weekend, and one 'three-day' weekend every four weeks. Weekday site hours were extended from 7am to 5pm to 6.30am to 5pm and from 6.30am to 3pm on the one Saturday worked each month.
- Project 2 (Dam project) A compressed work week, which involved reducing the length of the normal 58 hr working week (10 hrs a day plus 8 on Saturday) to a five-day week, with working hours extended to
- 11.5 hours per day on weekdays and no weekend work. By May 2005, the site was operating on winter hours, further reducing work hours to 10.5 hours per day.
- Project 3 (Road project) An optional non-compressed five-day week (of normal hours) which was only
 available to workers who could demonstrate a 'personal need' for the change and that their work would
 not be adversely affected by the changed work schedule. Fewer than 20 out of more than 300 workers
 opted to change their schedules, and all were salaried workers, probably due to the income loss which
 would have been experienced by waged workers from reduced work hours.
- Project 4 (Water Treatment project) A mandatory shorter week of standard 10-hour days from Monday to Friday for everyone.

There was a high level of variability in the way that data was collected across the four projects using a combination of post and pre-intervention surveys (n= 314, - excluding project 4), long interviews (n=55 – projects 2, 3 and 4), short periodic interviews (n=11, project 1 only), diaries (n=16 - project 1 only) and focus groups (n =16 project - 1 only). Surveys utilized previously validated psychometric measures of perceived managerial support for work-life balance, work-to-home conflict, home-to-work conflict, and organisational time demands. In addition, data collected at Project 3 included single-item measures of satisfaction with work time and work-life balance. Post-intervention surveys requested respondents to indicate the impact of the intervention on their work-life balance.

As in previous studies, results were significantly different for waged and salaried workers. Reduced work hours (10 hrs a day during weekdays with no weekend working) are generally unsupported by waged workers because it can significantly reduce their weekly 'take home' pay. In contrast, this has no impact on the pay of salaried workers and only benefits them – so they tend to strongly support it. Overall, across all workers, the projects at which the alternative work schedule interventions were judged to be most successful (projects 1 and 2) involved a compressed work week (i.e. lengthening the workday between Monday and Friday and eliminating Saturday work). Although this does not benefit salaried workers as much as a shorter working week, this did not affect the pay of waged workers but provided everyone with increased opportunities for rest and recuperation and participation in family activities. In contrast, in Project 3, the uptake of the shorter working week was extremely low, and no waged workers opted to make the change, meaning there was minimal beneficial impact on workers' WLB. In Project 4, a mandatory shorter week of five 10-hour days resulted in many waged workers leaving the project to work at another construction project that provided the opportunity to work Saturdays and hence earn more hours paid at the overtime penalty rate. Presumably, this was the same project as Townsend et al. (2006, 2006a) studied.

Overall, the authors conclude that the results support other research, which shows that many Australian workers (including those in construction) work more hours than they would like (a state known as 'overemployment'), which impacts perceptions of WLB. However, as the authors rightly warn, the results cannot be generalised to other projects because the case studies were alliances on large government-led infrastructure projects. Alliances create a very different project culture compared to traditional competitively tendered projects since risks and opportunities are shared, there is a strong focus on relationship quality, flexibility,

openness and transparency, and project value are seen more broadly than just price. Furthermore, project participants are selected based on their capability, approaches and systems as well as their commitment, chemistry and the likelihood of them delivering outstanding results. The authors also caution that differences in the timing and level of access provided to researchers to each of the case study projects prohibited the use of a consistent experimental design, which impacted the internal validity of the research and the ability to make causal inferences about the effect of the interventions.

6.2.4 2009

Berman (2009) analysed the 'direct' costs and benefits of implementing a shorter 4-day, 40-hour week of four 10-hour shifts in three US construction organisations (small, medium and large). Assuming a productivity loss of 2% (based on work hours and output data from the U.S. Department of Labour), he estimated the cost for each organisation. He then considered potential cost savings associated with a shorter week, such as reduced travel to and from sites (time and fuel, etc) and reduced site set-up and clean-up costs. Berman's results (albeit based on an undefined methodology) indicate that cost savings are directly related to the firm's size and that small, specialised trade firms find it easier to adjust to shorter and compressed work schedules and gain the highest relative benefits from them.

Lingard and Francis (2009) cite unpublished research into one major Australian construction company (ProBuild) that re-programmed its projects to accommodate a compressed working week with smaller, dedicated and discrete work groups continuing to work Saturdays. ProBuild also established an accredited training programme on WLB for their managers, who were also required to report monthly on WLB outcomes. No data or methodology is presented. However, Lingard and Francis (2009) report that anecdotal evidence indicated that WLB improved with equivalent if not better productivity and that there were also benefits for organisational culture, recruitment and retention. They also cite several research projects into compressed workweek schedules outside the construction industry, reporting evidence of positive impacts on employees' productivity, job satisfaction, absenteeism and overall satisfaction. They report that the requirement to work every Saturday is the most commonly cited source of dissatisfaction among Australian site-based construction professionals and managers and that the introduction of a compressed work week tends to be strongly favoured by salaried, mainly managerial, professional and administrative employees but less supported by waged workers who are concerned that eliminating Saturday work will reduce their weekly income, which is based upon an hourly rate plus overtime. Thus, they argue, in implementing any WLB initiative, a balance has to be struck between the length of the working day, overtime arrangements and wages and the need to engage the workforce in negotiating and supporting such arrangements with changes to the way work is organised and any extra resources to enable it to work.

6.2.5 2010

Bradley et al. (2010) sought to measure the success of a workplace intervention designed to improve WLB in a single infrastructure alliance project in Queensland and the project manager's role in its success. Presumably, this is the same project as the first alliance project in Townsend et al. (2006), the project studied in Lingard et al. (2007) and the second project in Lingard et al. (2008). The intervention involved compressing the number of days in the working week from six days to five 11-hour days and introducing team-building activities for white and blue-collar workers on RDOs. While comparative research could not be conducted before and after the intervention and while only one project manager was interviewed, interviews with 19 site staff (14 salaried staff, 5 wages/workforce staff) and 14 of the same site staff at two points in time after the intervention (10 salaried staff, 4 wages/workforce staff) showed that staff, on the whole, were more satisfied with their work experience after the interventions. They indicated the important role that managers' attitudes and behaviours played. It was concluded that managers need to ensure they provide good opportunities for staff to balance their work and non-work lives, but importantly, they need to demonstrate the importance of the issue through modelling good WLB behaviour themselves.

Brown et al. (2010) analysed the WLB impact of the weekend working and compressed working week initiative introduced on a large Queensland infrastructure project, which is presumably the same alliance project as in Bradley et al. (2010), Townsend et al. (2006), Lingard et al. (2007) and the second project in Lingard et al. (2008). At the commencement of the project, the site was operating on a 57.5-hour week spread over six days, typically involving 10 hours per day on weekdays and seven and a half hours on Saturdays. The project introduced a compressed working week (where work hours remained the same), which involved a compulsory five-day working week (weekends free) with an extra hour added to each day during the week (Monday to Friday). Nineteen participants across a range of roles were initially interviewed (14 salary and 5 waged staff). Three months after the introduction of the compressed week, 14 of these participants were interviewed again (10 salary and four wages). The findings confirmed that there can be significant WLB benefits from a

compressed working week associated primarily with providing free weekends for employees to recover and enjoy some recreation time to pursue personal interests and social activities. The authors conclude that while WLB policies and working time arrangements (such as a compressed working week) can improve employees' WLB, they may also create tensions within organisations and face barriers to implementation.

6.2.6 2011

Townsend et al. (2011) analysed the experiences in four of Queensland's major alliance infrastructure projects, which involved attempts to shift to a five-day working week. These are presumably the same as those studied in Linet al. et al. (2008) and include a combination of the other projects in Townsend et al. (2006, 2006a) and Lingard et al. (2007). Case 1 implemented a compulsory compressed five-day working week. Case 2 initially implemented a five-day week with no additional hours, which resulted in a reduction in working time. Case 3 provided limited opportunities to selective employees (based on family needs and no interruption to tasks) to work reduced hours on a five-day working week. Case 4 implemented a compulsory compressed five-day working week (additional 30 minutes per day) in a four-week roster cycle of two two-day weekends, one one-day, and one three-day weekend. A combination of qualitative and quantitative data was collected at each worksite through questionnaires, long and short episodic interviews, focus groups and diaries, although sample sizes and details are not provided. Presumably, this was the same methodology employed by Lingard et al. (2008). The analysis is framed within a neo-Marxist lens, which recognises that the long-hours culture within the industry is an important means of generating surplus economic value for businesses at significant social and personal costs to employees and with little or no analogous cost for organisations. Their analysis also notes that every construction site workforce includes a combination of two closely interdependent types of employees (managers/professions and operatives/tradespeople/labourers) whose responses to a shorter working week tend to vary because of their differing responsibilities and methods of payment for hours worked. The analysis also argues that traditional work patterns (long hours and work and presenteeism) in the construction industry are determined by gendered assumptions which have disadvantaged women's career progression. This excludes them from the industry and perpetuates this culture. The authors conclude that reduced working days, if managed and implemented appropriately, can benefit WLB regardless of whether they are wage or salary-earning personnel and at no significant cost to organisations. They argue that shifting to a five-day roster did not increase project costs and timeframes and had no negative impact on project performance (while some managers report positive impacts). The authors also argue that reducing working days can also shorten project timelines but acknowledge that they did not have the data to argue causality. Finally, the authors note that the most significant obstacle to implementing WLB initiatives, which change work schedules, is the different preferences but co-dependent nature of salaried and waged staff on projects. This structural bifurcation of the workforce complicates the introduction of WLB initiatives because it means that a roster that benefits one group can often come at a cost to the other group. They conclude that navigating these complications makes WLB initiatives too much effort for many managers to contemplate, let alone implement.

6.2.7 2012

Townsend et al. (2012) present an analysis of an alliance infrastructure development in Queensland, Australia (presumably one of the alliance projects studied in the previous projects above). The management group decided to implement a 5-day working week as a work-life balance initiative. The employees would continue to work 10 hr a day from Monday to Friday and not work at all on Saturdays. Hence, the waged employees would lose the premium Saturday penalty rates. Data was collected through 16 interviews (6 professional staff (engineers, managers) and 10 blue-collar workers). 2 of these participants were women (14 men). 16 additional employees (professionals) kept a diary for a week. 27 of the 32 respondents had families. 4 were women. Findings show that due to a combination of internal and external forces, the 5-day working week was not sustainable. Wage employees were dissatisfied with the 5-day working week based purely on financial decisions, and many left to work at another 6-day site, which meant the project fell behind schedule. It is concluded that although the prevailing workplace culture is considered an important factor in the adoption of work-life balance initiatives, structural and workplace principles and practices are also critical in working to secure the successful introduction of work-life balance initiatives.

6.2.8 2020

Tijani et al. (2020) conducted a detailed literature review of evidence regarding the impact of various WLB interventions. They conclude that there is limited evidence about the effectiveness of these strategies, the way that they interact and the challenges of implementing them in practice in the construction industry. Tijani et al. (2020) note that Australia was the only developed country that employed a compressed working week on a construction site and that further research is needed in this area. Importantly, they also note that

workers must be properly consulted about any interventions, that there is no single universal solution to suit everyone's needs and that any intervention will likely require various approaches tailored to the diverse characteristics of the construction workforce.

6.2.9 2021

Lingard et al. (2021) summarise a literature review of research on long work hours, low gender diversity and poor health and wellbeing in the construction industry. Commissioned by the Construction Industry Culture Taskforce (CICT) to support the development of a construction industry draft Culture Standard, the report links these problems to long and inflexible hours of work, which have become normalised within the Australian construction industry with work hours being subject to little or no regulation and upper limit. They also report that the relationship between working time and health is gendered, with women's mental health being negatively impacted by long work hours at about 34 hours per week compared to men at 47 hours a week because of extra caring responsibilities (the double shift). This, they argue, acts as a barrier to women's workforce participation in the construction industry and reinforces traditional gender roles in households, with female partners being more likely than male partners to sacrifice their careers and absorb the largest share of the domestic/household workload. This, in turn, exacerbates the industry's gender pay and superannuation balance gap.

The review argues that there is an increasing level of support for a reduction of the working hours in the Australian construction industry. This is based on anecdotal evidence of more client-led interventions, an increasing number of companies trialling alternative working hour strategies, and a new EBA incorporating reduced working time with several principal contracting organisations in New South Wales. It also reviews a number of different flexibility, reduced work hour schedules and compressed working week scenarios. As in previous reports, they note that modified work hours in Australia affect waged and salaried workers differently. Waged workers' support for modified work hours depends on how much their income is affected, whereas salaried workers were generally supportive because they experienced no change in remuneration. Therefore, the specific costs and benefits of different approaches for different stakeholders must be considered when designing alternative working time regimes. Importantly, Lingard et al. (2021) note the significant methodological limitations of research in this area, with very few peer-reviewed articles having focused on the risks of working long and inflexible hours and the impacts of working time reduction/modification interventions implemented in a construction project setting.

Galea et al. (2021) examined the impact of a compressed 5-day working week on worker well-being and family life by collecting data from workers on three Sydney construction sites operated by construction firm Roberts Co. Given its prominence in catalysing the current 5-day week debate, it is worth critiquing this report in some detail.

The research was based on three case study projects in Sydney, NSW. Two of the sites were hospitals and implemented a compressed 5-day work week. The third site was a control site (a high-rise commercial project) where the usual six-day workweek operated. Details of the sites are provided below:

- Case study 1 On this project (Concord Hospital redevelopment), a compressed 5-day working week was implemented. The working day, which normally operates from 7am – 3pm (8hrs), was extended by two hours from 7am – 5pm (10hrs) to provide overtime pay during the week and give workers a two-day weekend. The subcontractors generally worked the same hours they would have worked across a six-day week but in a five-day week. While workers were discouraged from working on other sites on weekends, there were no formal contractual arrangements between Roberts Co. and subcontractors to enforce this. Flexible RDOs were worked by workers who wanted to work whilst the site was shut for fixed RDOs. Exceptions for working weekends were made on the direction of the client Health Infrastructure NSW for erecting and dismantling the tower cranes, implementing public health orders in response to COVID-19, and a three-week period at the end of the project to make the facilities available for the COVID-19 response. Health Infrastructure NSW, Roberts Co. shared the costs of the shorter working week. Health Infrastructure NSW paid approximately 1% extra. Roberts Co. paid for the cost of the other interventions, including well-being training for workers, well-being leave, improved amenities, redistribution of risk in the contract with subcontractors and investment in smartphone technology. Waged workers reduced their overtime work hours and income but also benefited from improvements to family life, work-life balance, and job satisfaction.
- Case study 2 Liverpool Hospital's early works were also added to the study to increase the number of participants (presumably under exactly the same conditions as Concord to allow reliable comparison).
- Control project Mount Street Project, a high-rise commercial building operating a six-day work week, was added as a control site to determine the effect, if any, of COVID-19 on the well-being of workers.

It is important to note that Roberts Co. sites also introduced complementary interventions which were also considered in the research evaluation. These included:

- Targeted mental health first aid training and safety training;
- Improved site facilities for workers such as a breastfeeding room.
- For Roberts Co. employees, access to three well-being leave days and \$1000 per annum to spend on their well-being.
- Online site inductions and streamlined safety procedures;
- Changes in contract conditions between Roberts Co. and subcontractors, effectively reducing Roberts Co.'s sanctioning powers and paying subcontractors on the same day each month;
- Signage at the front of the site that read: "Thank you to our subcontractors and stakeholders, we can't build without you," and every subcontractor was named.

Data was collected via two surveys 3-6 months apart with two separate waves.

The samples for each survey were as follows:

- Wave 1: 253 respondents (237 from case study 1 Concord and 16 from case study 2 Liverpool)
- Wave 2: 34 respondents (34 from Case Study 1 and none from Case Study 2).
- The control project was excluded from the data reported because the sample was too small.

Interviews were also conducted with 27 construction workers (17 on case study one, 2 on case study 2 and 8 on the control project), 9 next of kin (nominated by workers) and 12 industry stakeholders. An independent consultant also conducted an economic analysis to determine the costs or savings of shifting to a five-day workweek.

The main conclusions drawn about the effects of a 5-day compressed week included:

- A positive link between the five-day work week and improvements to workers' wellbeing. Most workers
 (75.4%) were reported as preferring a compressed 5-day work week over either a six- or seven-day
 working week;
- Trends in the improvement of quality of life and mental health for workers the longer they spent working a five-day week;
- An improvement in work-life balance among workers (50% great difference, 28% some difference, 16% no change, 6% even busier);
- Next of kin improvements in their partner's mood and well-being (less fatigued, more relaxed, and more available to enjoy their social and family life);
- An increasing weekly trend in the quality of life among workers on a five-day workweek site;
- Reducing mental distress from 17.13 to 14.2 over a 20-week period (K 10 Scores);
- A decreasing trend in injury rates. The trends from project safety data show that the initial injury rates
 were very low compared to industry standards and showed a declining trend over the 20-week data
 collection period;
- A reduction in work hours to under 50 hours a week on average;
- A reduction in workers' travel time to site;
- An improvement in site cohesion and reduction in aggressive and adversarial behaviour on site, which may eventually assist in improving construction industry culture;
- The 5-day week added 1% to the contract price. The increase in cost was associated with time-related preliminary costs only. The costs of subcontractors undertaking the work did not increase, and cost savings (not measured) could be created by improvements in safety and other benefits.
- The 5-day week added 12 working weeks to Roberts Co's 'theoretical' 6-day week program and was completed in seven additional weeks. No details of the theoretical six-day program are provided. The independent economic analysis also reported that the project was completed before the forecast completion of one alternate tenderer's 6-day programme and later than another tenderer's 6-day programme forecast completion. However, this tenderer was the incumbent Early Works Contractor and, as a result, likely had programme efficiencies, which likely meant this was not a reasonable comparison with Roberts Co's programme.
- The qualitative interview results report that respondents felt more productive, efficient, and disciplined, made fewer mistakes and that their work hours were of higher quality and value. However, as the authors acknowledge, productivity was not measured.
- The report also notes the important potential impact of the other complementary interventions introduced onto case study sites. One intervention alone (a 5-day working week) will not address the complexity of wellbeing, mental health and gender inequality in the construction sector.

While useful in catalysing a debate about the 5-day week, this research has several significant methodological limitations, which means that the results should be treated with caution. As the authors acknowledge, they could not draw any definitive conclusions about the impact of the shorter working week on workers' well-being or economic advantage. Some of the more significant methodological limitations include:

- The recruitment of research participants was impacted by both the Black Summer bushfire disaster and the global COVID-19 pandemic. As acknowledged by the researchers, these unpredictable events impacted the research team's ability to present a complete economic analysis of the cost-benefit of the 5-day working week examined in this intervention.
- It was also not possible to perform repeat surveys in waves 1 and 2 with the same construction workers. This prevented comparison of like-with-like workers over time and the ability to draw any reliable conclusions about the impact of the 5-day week intervention on workers' wellbeing.
- The study engaged 253 workers in the initial survey (wave 1) but only 34 respondents for the follow-up survey for the study group (wave 2) and zero respondents for the control group. The absence of a control group and the significant drop in response rate between waves one and two prevented reliable claims from being made about the impact of the 5-day week.
- Some of the claimed preferences for a 5-day week need further verification and testing. For example, it is claimed that separated, widowed and divorced workers showed the strongest preference for a five-day work week and fewer working hours. Yet there were only 3 widowed workers (1.2%), 8 divorced workers (3.2%) and 7 separated workers (2.8%) in the sample.
- It is unclear whether contractors and subcontractors staffed the one-off case study projects in the same way as they would staff normal projects or if the 5-day week was mandated across the whole industry. For example, if people on these projects were put there because they were amenable to a 5-day week, the results would likely be positively biased.
- The independent economic analysis concluded that there did not appear to be any significant increase in trade productivity on the programme due to the change to a 5-day working week. The independent analysis also concluded that the change to a 5-day working calendar did not positively impact the project's critical path. It also reduced project float by removing weekend working and the ability of the contractor to mitigate critical programme delays compared to a 6-day programme. The independent economic analysis also indicates that for most trades, the project was unable to exceed/meet the baseline trade productivity assumptions through the project. While some specific trades, such as form workers, were able to outperform some industry benchmark rates, it was acknowledged that this needs to be tested by observing trades over multiple projects. It is also acknowledged that the new EBA signed in October 2020, which introduced two additional fixed RDOs each month, would have effectively reduced a typical 6-day working week to a 5.5-day working week calendar without the need for any intervention. If this update had been addressed at the start of the project, the programme impacts of moving from a typical 6-day working week to a 5-day working week would have likely been reduced. Overall, the independent analysis indicates that there did not appear to be any significant increase in trade productivity effects on the programme due to the change to a 5-day working week. However, the use of a 5-day calendar has a positive impact on the criticality of client-related offsite tasks (e.g. client activities, design teams and suppliers) who were able to keep up to speed with a 5-day programme better than a 6-day programme. This likely resulted in a reduced risk of offsite design and procurement delays.

6.3 Other shorter working week interventions in the construction industry

Apart from the published evidence reviewed above, data about other shorter working week interventions in the construction industry is scant. The few other examples reported have been in non-peer-reviewed publications and other forms of media, such as the press or general websites of organisations promoting a shorter working week.

For example, Berman's (2009) cost/benefit analysis of the 4/10 work schedule (four 10-hour days) concluded that 4/40 work schedules are feasible in construction, and the cost savings associated with a safer work environment may be significant. Berman (2009) reported that the potential benefits and feasibility of 4/40 work schedules are greatest for firms of small, specialized firms with specific work that can be completed within the compressed workweek format. While the value of the benefits of increased employee morale or better work-life balance could not be quantified, Berman (2009) assumes that employees are also more productive in such work schedules. However, construction managers and field supervision personnel would likely find such schedules unfeasible (because of insurance, security and scheduling logistics), Berman (2009) claims.

Hertzog-Young (2021) cite the example of a high-end building and renovations company called Orocco (based in Scotland), which moved to a 4-day week in 2021. They were reportedly the first construction company in the UK to do so, and the arrangement involved a compressed 4-day week which gave workers Fridays off

but required them to work the same number of hours per week as a standard 5-day week, for the same level of output. Quoting staff from the company involved, Hertzog-Young (2021) points to increased efficiency and productivity and more streamlined workflows. While acknowledging potential safety concerns for those workers engaged in heavy physical labour on-site, they report that Orocco had not reported a change and had noticed a reduction in sickness absences and improved mental health and general well-being.

Hong Kong's Construction Industry Council (CIC) alternate 4-day week started in July 2022, offering an additional rest day every fortnight for all full-time employees and reducing the total number of working hours per week to 40. No results have been reported as far as we can ascertain.

In Australia, as discussed earlier, a shorter working week is being proposed in the Draft Culture Standard developed by the Construction Industry Culture Taskforce. Based largely on the work of Lingard et al. (2021) and Downey and Stough (2018), the Draft Culture Standard comprises three interrelated elements: Time for life, Wellbeing, and Diversity. Under 'Time for Life,' the Draft Culture Standard requires that organisations develop and submit as part of tender documentation. This project schedule adheres to a Monday-to-Friday operational period, with the site shut on Saturday and Sunday. The project schedule should ensure that people work 50 hours per week. Where this is not achievable, no one should work over 55 hours per week. Exceptions to this include where the organisation proves to the client that this is unviable due to factors such as out-of-hours road or rail construction and maintenance and crane installations, which can affect public safety on weekdays. If a Monday – Friday operational period is proven to be unviable, the organisation will develop the project schedule to ensure that a worker on the project works no more than 5 days per week. The organisation will report to the client on compliance with the schedule in client reports during delivery. The results of a consultation process with industry about the implementation of this standard are not publicly available.

It has also been reported in the general media that in 2020, Lend Lease struck a deal with the CFMEU that any new project would be a 5-day work week (albeit with concessions). Likewise, Destination Brisbane Consortium (Multiplex, Fitzgerald, and Delta Group) operates on a 5-day work week policy on the Queen's Wharf project, the largest in Queensland. Other hybrid models reported in the media include those implemented by the Kapitol Group in Melbourne (Hanna, 2023). It does not require a change to their EBA and involves a 14-day cycle, resulting in an average of five workdays per week, including alternate Saturdays off. Through strategic planning, the company works to enhance processes to be more efficient, so fewer hours are required overall. Where Saturday work does not require a whole team on site, the company uses a pool of trained temps to cover their staff. The company acknowledges that this is both time-consuming and expensive. However, they argue that the benefits (in terms of attracting staff, higher staff retention, and less fatigue) outweigh the costs.

6.4 Conclusion

It is evident from above that while there has been some interesting and useful WLB research in construction, it has significant limitations in providing a reliable basis for policymaking. These limitations are summarised in more detail below.

6.4.1 Existing WLB research is very limited and not representative of the building and construction industry as a whole

This chapter shows that the evidence around the benefits of a 5-day working week (and a shorter working week in general) is limited. The limited peer-reviewed research that does exist is often anecdotal and/or based on limited case studies of individual companies (typically large firms) and/or individual projects (typically large infrastructure projects). Furthermore, these case studies often focus on projects delivered by larger firms using untypical procurement methodologies (such as Alliances) with sophisticated clients who are equipped and prepared to share potential risks and support such initiatives.

It is evident that existing research evidence about the pros and cons of a 5-day week cannot be reliably generalised to the whole construction industry population because it:

- Does not represent the highly diverse building and construction industry (infrastructure, commercial, industrial, high-rise residential and domestic housing)
- Does not reflect the full diversity of the construction supply chain, which is dominated by small-to-mediumsized enterprises.
- Does not reflect the full diversity of procurement approaches, which are likely to distribute the risks and opportunities of moving to a 5-day working week in different ways.
- Does not reflect the full diversity of cultures, work practices and conditions and industrial relations

- environments across the sector.
- Does not reflect the diversity of construction clients who play a critically important role in supporting the industry to move to a 5-day week through the way they determine the scope, risk profile, time constraints and project resourcing.

6.4.2 Research sample sizes are typically very small

While existing construction industry studies into WLB and altered work schedules such as a 5-day working week have been useful, samples are typically small and tend to be focused on a limited number of large projects (typically economic and social infrastructure projects) delivered by large contractors and on specific professional groups (such as civil engineers). Decision-making based on such statistically unreliable evidence is highly problematic and potentially dangerous since we do not know if some groups could be adversely affected by a 5-day working week. Counterfactuals are rarely considered in any rigorous way, such as deadweight (what would have happened anyway due to other factors and interventions), drop-off (reduced benefit over time), attribution (else could have contributed to any change), displacement (what other benefits does the intervention displace/push aside); substitution (what is lost by putting this initiative in place) and negative impacts in general. As sometimes (but not always) acknowledged by the authors of these research studies, the findings have been inconclusive, often contradictory, and statistically unreliable. They cannot be generalised to the rest of the construction industry. There is widespread agreement that much more research is needed with much larger sample sizes than currently exists, to make reliable evidence-based decisions about issues such as a shorter or compressed working week.

6.4.3 Research is biased towards people who live in traditional family-type structures

Existing research has a strong bias towards people living within traditional family-based structures (married or defacto couples with children) – thus the common use of the term 'work-family' balance. However, many people in the construction industry do not have families and must balance many more non-work domains, which may be adversely affected by a 5-day working week. These alternative life domains include friendships, commitments to clubs and societies, sport; voluntary and community work, education, health treatment, leisure, romantic relationships, study, religious observance, travel, etc. This means that the findings and claims of benefits do not necessarily apply to important cohorts in the construction industry, such as young single men and women, those from different cultural backgrounds and equity-seeking groups such as people with a disability, Indigenous people and refugees and migrants who are increasingly the focus of workforce diversification strategies.

6.4.4 Research often fails to account for the complexity of non-work factors that can cause poor work-life balance

Research advocating a shorter working week can also fail to fully acknowledge that work-life balance is much more complex than just hours worked and can be linked to many other organisational factors (such as toxic organisational cultures, new technologies, poor working conditions and remuneration, etc), individual factors (such as life circumstances, age, ethnicity, gender, family and caring responsibilities, marital status and disabilities) and societal factors (such as cost of living pressures, transportation challenges and cultural and religious expectations etc). A 5-day week will not change toxic work environments, and WLB may be better served by other types of interventions. Indeed, a 5-day working week could potentially worsen work-life balance for some people. Yet, there has been very little research into the 'relative' effectiveness of alternative work-life balance initiatives, which may emerge if clients mandated or incentivised the policy. The construction workforce cannot be treated as a homogenous group. Apart from acknowledging that a 5-day working week affects waged and salaried employees differently, it is rarely acknowledged that the concept of work-life balance means different things to different people depending on factors such as job salience, personality, age, life circumstances, aspirations, organisational support and external social and economic factors which affect the value of work is someone's life. The complex intersectional implications of moving to such a model are, therefore, not currently acknowledged.

6.4.5 Research tends to assume work and life are in conflict and the positive aspects of work are often ignored

Most existing research studies also present work and life as in 'conflict' (thus the common term 'work-life conflict'). Too often, the many positive impacts of work are ignored, which can benefit WLB or at least mediate the negative impacts of poor WLB caused by poor workplace/employment practices. These potential benefits include: socialisation; purpose; identity; status; enjoyment; fulfilment; security; income; satisfaction; self-confidence, self-worth, etc. So, working a shorter working week could adversely affect work-life balance

for many people. For example, many young people depend on working long hours to support their growing families and pay mortgages. This means that the anxiety associated with reductions in income from working a shorter week and the stress and fatigue linked to the possible need or temptation to work a second job to compensate or use the free time could potentially outweigh any WLB benefits of a shorter working week. While some 5-day models can be designed to compensate for loss of income and reduce such risks, this will not always be possible.

6.4.6 Research on shorter working week models is limited

Existing research into a shorter working week tends to be based on a very limited range of 5-day week models (most often a compressed 6-day working week). Yet many other models may emerge if such a requirement was mandated or incentivised with potentially significant variations in impact across the industry's diverse workforce.

There are also physical limits to how many hours some tradespeople and manual workers can operate safely, which are rarely considered. This is especially important in compressed 5-day week models, which typically create longer working days (on top of already very long days) to compensate for losing the 6th day. Furthermore, for many employees in office-based roles who are constantly connected by technology, the concept of the 'working week' has become largely redundant. For these people, work-life boundaries are blurred and working time does not equate to formal time spent in work. Therefore, any formal moves towards a 5-day working week could have little impact on their lives and be undermined by 'informal work practices' which are hidden from view and outside the control of employers.

6.4.7 Research largely ignores the employer's perspective

There is also a tendency for existing research to consider the question of WLB and a 5-day working week from an employee's perspective. However, there is an important symbiotic employer-employee relationship to consider in any work-life balance research because of the potential impact a 5-day week will have on profits and, in turn, job security and working conditions (and, therefore, work-life balance). The employer's voice is too often missing in the WLB debate and needs to be more prominent in the interests of both employers and employees.

6.4.8 Research tends to treat projects in isolation

Research into the merits of a 5-day working week also tends to treat projects in isolation. This prevents a holistic understanding of implementing a 5-day working week across the whole industry. The full impact of a 5-day working week cannot be fully understood without considering its impact across multiple projects because, currently, trade-offs can be made between 5-day week and non-5-day week projects to mitigate the perceived and/or real risk of negative impacts for the businesses involved. For example, human resources can often be switched between 5-day week and 6-day week projects to subversively maintain a 6-day week, and some people may be prevented the equal opportunity to work on such projects, potentially exacerbating workplace inequities in access to pay and a balanced working life.

6.4.9 Mixed methods research is rare

When one includes non-peer-reviewed research, the methodological limitations above are magnified. Across all studies (peer-reviewed and non-peer-reviewed), mixed methodologies which compare and contrast data from different perspectives and sources are relatively rare. The Hawthrone effect is rarely controlled for, and researchers reporting individual case studies have been unable to isolate the exact impact of altered working hours such as a 5-day week. This is because the uniqueness of each construction project makes experimental-type comparisons of 'like-with-like' difficult and the control of intervening variables (such as other work-life balance interventions or external conditions) extremely difficult to isolate with any degree of accuracy.

7. METHODOLOGY AND METHOD

This section describes the process by which data was collected and analysed in this project, how we controlled for potential bias and the philosophical underpinnings of the research.

7.1 Introduction

The previous chapters have highlighted a range of methodological challenges in undertaking reliable and valid WLB research which have not always been adequately considered in previous studies.

Methodological challenges in undertaking valid and reliable WLB research include:

- The highly personalised and dynamic nature of WLB which means different things to different people at different times in their lives;
- The need to consider the full diversity of views across the whole industry (age, gender, ethnicity, role, onsite/offsite etc.)
- The need to consider the variety of firms which operate across the industry (small, medium and large contracting firms and trade subcontractors);
- The need to consider the views of firms from across different industry sub-sectors (Commercial building, Residential building, Civil construction and developers);
- The need to consider the views of firms from different regions (urban, regional and remote);
- The complex and multidimensional nature of WLB and the many ways of measuring it;
- The socially and culturally constructed nature of WLB which means that responses to questions about WLB can be influenced by media coverage, peers and industry, community and cultural norms;
- The potential commercial and ethical considerations around WLB which may encourage people to give a certain response which they perceive to be the right thing to say;
- The need to consider both employee and employer perspectives;
- The need to triangulate multiple methods of data collection and analysis;
- The need to carefully consider sampling (size and representativeness);
- The need to consider impacts across the whole industry rather than individual projects.

If researchers do not consider these methodological challenges, there is the potential for various forms of bias to creep into studies of WLB. These include:

- Researcher bias: where researchers impose their own personal beliefs, agendas and ideologies on participants and on the way they interpret data;
- Sponsor bias: when participants are influenced by the sponsoring organization's desired outcomes and interests:
- Social desirability bias: where participants say what they perceive to be the socially acceptable and right thing to say, especially when there are commercial interests involved;
- Acquiescence bias: where participants minimise effort by guessing what they think the researchers want them to say rather than reflect their true point of view;
- Habituation bias: where participants go on autopilot, follow existing workplace norms and peer pressures
 and don't express or think about what they really feel.

7.2 Minimising potential bias in this research – our methodological principles

It is impossible to eliminate all bias in research, even in a controlled laboratory setting. However, it is critical to design research to minimise the risk of bias and ensure that findings are valid and reliable for stakeholders to use in decision-making and policy-making.

This research adopted six key methodological strategies to minimise potential bias:

- To ensure we represented the views of the whole industry we collected data from a range of backgrounds (genders, ages, ethnicities etc), roles (senior executive; off-site/head office administration/management; on-site management/admin/supervision; construction worker/tradesperson/labourer) in a range of organisations (small, medium and large contracting firms and trade subcontractors) from across the entire NSW B&C industry (commercial building, residential building, civil construction and developers) in urban, regional and remote locations;
- We adopted an interpretive bottom-up approach, which was designed to give voice to industry participants
 and to respect, capture and represent the multiple lived experiences and perspectives of all NSW B&C
 industry stakeholders whose WLB could be affected by moving to a 5-day working week;

- We employed an abductive mixed methods approach to data collection and analysis, which triangulated both qualitative (semi-structured interviews) and quantitative data (industry-wide survey, documentary analysis) from a wide range of sources and perspectives;
- We undertook a pilot study to trial and refine our approach;
- We used a research team that was deliberately diverse in age, gender, culture, and background. This
 facilitated greater reflexivity and allowed us to cross-reference the interpretation of data from multiple
 perspectives until we achieved a high level of inter-rater agreement about how we would present the
 results;
- We gave careful consideration to sampling, data collection methods and instruments, question-framing and data analysis. We employed multiple layers of random sampling and ensured that the MBA was not involved in sampling, data collection and analysis and was not aware of who provided data or not;
- We also used a collaborative sense-making approach where the research design and eventual results
 were presented to a diverse group of industry stakeholders to incorporate their feedback and give them
 a voice in the interpretation of results;
- We used a range of standardised and widely validated measures of WLB, as described in Chapter 2, to accommodate the full complexity and multidimensional nature of the concept;
- We followed strict ethical guidelines informed by The National Statement on Ethical Conduct in Human Research 2023 (National Statement) and The Australian Code for the Responsible Conduct of Research (2018). This ensured that our research aims, objectives, and design were clearly communicated to participants, that there were no commercial relationships that could interfere with the research outcomes, and that participants' rights to anonymity and privacy were fully respected.

7.3 Data collection and analysis

Data was collected using a three-stage approach:

- Stage 1: Semi-structured interviews (supported by documentary analysis) with a representative sample of 47 project planning, cost, project management, human resource management and safety experts from 28 contracting and development firms across the NSW building and construction industry. This stage aimed to explore the cost, time and other project performance implications of moving to a 5-day week in practice for firms across the construction supply chain and their clients.
- Stage 2: Semi-structured interviews with a representative sample of 64 people from across the NSW building and construction industry to understand the individual WLB implications of various 5-day week scenarios and the level of support for each. These people came from a range of demographic backgrounds (genders, ages, ethnicities, etc.), roles (senior executive; off-site/head office administration/management; on-site management/admin/supervision; construction worker/tradesperson/labourer), organisations (small, medium and large contracting firms and trade subcontractors), sectors (commercial building, residential building, civil construction and developers) and regions (urban, regional and remote). This stage aimed to understand, from the perspective of those working across the NSW B&C industry, the individual WLB implications of moving to a 5-day week and the level of support for this.
- Stage 3: A major NSW state-wide survey of 1475 people who are representative of the NSW building
 and construction industry, using a range of standardised WLB instruments and open and close questions
 based on our detailed literature review in Chapters 1 to 6. The aim was to understand the current WLB of
 people working across the industry, the factors that affect it, the implications of moving to a 5-day week
 on their WLB and the level of support for this across the NSW B&C industry

7.4 Stage 1

Using a key-informant approach, semi-structured interviews (supported by documentary analysis) were undertaken with a representative sample of 47 project planning, cost, project management, human resource management and safety experts from 28 contracting and development firms across the NSW building and construction industry. This stage aimed to explore the cost, time and other project performance implications of moving to a 5-day week in practice for firms across the construction supply chain and their clients.

7.4.1 Sampling

Our sampling approach for selecting interviewees was purposeful and designed to ensure an unbiased and representative sample of participants from a range of organisations (various small, medium and large contracting firms, developers and trade subcontractors) from across the entire B&C industry (commercial building, residential building, civil construction), urban, regional and remote, developers and contractors using the sample frame of MBA members (considered representative of the B&C industry).

The sampling process involved the following steps:

- 1. The NSW MBA emailed a representative sample of its member organisations from a range of organisations (small, medium and large contracting firms and trade subcontractors) across the entire NSW B&C industry (commercial building, residential building, civil construction and developers) in urban, regional and remote locations. They were asked if they would be happy to nominate a cost and planning expert to analyse the cost and time implications of a 5-day week scenario based on the experience of tendering a 5-day week or by the research team if they had no experience of tendering a 5-day week. This maintained the privacy of MBA member contact details.
- 2. These member representatives were then asked to contact the research team directly by email, indicating their willingness to participate.
- 3. As a double mechanism to further minimise any potential sponsor bias, the research team randomly selected a representative sample of firms from this sampling frame without the MBA's knowledge and asked their key representative to nominate people for interview who could provide expert insights into the cost, time and other performance implications of moving to a 5-day week (a key informant approach).
- 4. Following UTS ethics protocols these participants were then contacted directly by the research team via email. All participating companies and interviewees were anonymous and not known to the MBA.
- 5. Employing the principle of 'theoretical saturation' and an abductive approach to data collection and analysis, we continued recruiting participants until our interviews did not offer any new and relevant insights into the cost and time implications of various 5-day week scenarios. This resulted in a sample of 47 cost, planning, project management and safety experts from 28 contracting and development firms from across the building and construction industry, as summarised in Table 1.

Table 1: Sample Summary Stage 1

Demographic	Category	Number
Role	Executive director	4
	Senior planner	6
	Senior estimator	10
	Pre-construction manager	1
	National operations manager	1
	Project manager	7
	Construction director	1
	Chief Operations Officer	2
	Construction manager	1
	Head of conversations and strategy	1
	Managing Director	7
	Contracts administrator	2
	Contracts manager	2
	Project engineer	1
	WHS manager	1
Firm size	Large (250+ employees)	13
	Medium (50-249 employees)	9
	Small (1-49 employees)	6
Location	Urban/City	24
	Regional	16
	National	14
	International	8
Market	Commercial	24
	Industrial	10
	Residential	20
	Aged care	7
	Health	15
	Education	16
	Infrastructure civil	7
	Retail	8
	Hospitality	5
Project value range	\$0-50 million	9
-	\$50 - 300 million	12
	\$300 + million	16

Experience of 5-day projects varied across our sample:

- 97% of the sample had tendered on, worked on, trialed a 5-day week of some kind;
- 39% were already offering their staff a soft 5-day week;
- 87% of respondents had offered a hard 5-day week as an option to government clients in response to tender requests to submit alternative 5-day and 6-day prices and programs. Notably, as discussed in this report, most hard 5-day week options had not been taken up by clients due to cost and program implications (even when projects seemed ideal to respondents);
- 26% of respondents had voluntarily implemented a hard 5-day week on low-risk projects where the value
 of working Saturdays was already limited by restrictive DA conditions for weekend working or where
 the remote location made Saturday working less feasible. Notably, for the reasons discussed below, a
 number of these projects had reverted to a normal 6-day week after unexpected events made the use of
 Saturdays necessary to avoid delays;
- 5 respondents had recently commenced hard 5-day week projects;
- 4 respondents regularly worked hard 5-day weeks as the norm;
- 4 respondents had voluntarily offered a hard 5-day week option to private clients who they thought would be receptive. Notably, for the reasons discussed in this report, no hard 5-day week options had yet been taken up by private clients due to higher costs or longer programs (even when projects seemed ideal);

7.4.2 Interview rationale and process

Semi-structured interviews were used in this stage because, in line with our bottom-up approach, they allowed the participants to articulate in their own words and, based on their own experiences, the cost, time and other project performance implications of moving to a 5-day week in practice. The semi-structured interview questions were deliberately open-ended to enable the participants to describe their perceptions and experiences without any preconceived answers from the researchers. Each interview lasted about one hour. Using a quasi-experimental approach, participants were asked to do some preparatory work by imagining that they were tendering on a new project where there is a requirement to work a hard 5-day week.

A hard 5-day week is the focus of much current debate in the industry. It involves working Monday to Friday and shutting the site down on Saturdays apart from exceptional circumstances allowed by the client or where activities can pose unacceptable risks to worker and public health (e.g. tower crane dismantling, erection and maintenance, major road closures/diversions, critical services outages, interfacing with existing buildings, continuous plant activity etc.). The participants were also asked to assume the tender was competitive and that there were three shortlisted companies, including their own.

In line with our bottom-up approach to acknowledge the expertise and innovative capacity of the industry in responding to a 5-day week requirement, respondents were provided with two options (depending on whether they had previous experience of tendering on a 5-day week project):

Option 1 - To describe a hard 5-week scenario they had already tendered on (25 chose this option); Option 2 - Imagine that they were competitively tendering on a new project where there is a requirement to work a hard 5-day week (1 chose this option).

They were required to:

- Develop and submit a project schedule and cost plan as part of their tender documentation, which adheres
 to a 5-day (Monday to Friday) working week, with the site being shut on Saturday and Sunday.
- The project schedule should ensure that a worker on the project works no more than 5 days per week. This
 could be averaged over a maximum of four weeks if necessary, to accommodate unavoidable weekend
 working as justified to the client.
- Genuine justifications for unavoidable weekend working may include erecting and dismantling the tower
 cranes, necessary road closures, interfacing with existing buildings, continuous plant activity, etc. However,
 unforeseen events such as poor weather, which are normally built into schedules are not acceptable
 reasons for weekend working.

There were no other requirements on how respondents achieved a 5-day working week.

However, they needed to develop a solution to win the contract based on time, cost, quality, worker health and well-being, safety and worker acceptance.

During each interview, participants were asked 11 questions and to support them with documentary evidence where possible (see APPENDIX A for interview questions and prompts).

7.4.3 Data analysis

All interviews were audio-recorded and transcribed verbatim and analysed using thematic analysis in five stages following protocols by Guest et al. (2012) and Gioia et al. (2013):

- Stage 1: Our interview questions were our analytic starting point, and the first step involved researchers immersing themselves in the data by repeatedly reading the interview transcripts to obtain a high level of familiarity with the data.
- Stage 2: Researchers conducted open (inductive) and directed (deductive) coding, organising, and generating an initial list of items/codes (first-order coding) from the data set that had a reoccurring pattern. The analytical framework used for deductive coding was informed by our literature review of international 5-day week research. However, given the lack of a-priori research in this area, our coding was mostly inductive.
- Stage 3: Researchers searched for recurring patterns, linkages, categories, and subcategories within the first-order codes relating to each research question.
- Stage 4: Researchers examined how codes combined to form over-reaching themes relating to the research questions.
- Stage 5: Emergent themes were further refined by continued searches for data that supported or refuted
 the initial themes, allowing further expansion and connections between overlapping themes. This process
 continued in parallel with data collection until 'theoretical saturation' occurred, and no further themes
 emerged. Any instances of disagreement were resolved through continual discussion within the research
 team. This process continued until 100% inter-rater agreement was achieved, providing a high level of 'fit'
 with the data and confidence in the validity of the emergent themes.

Coding is essentially an interpretive act (Saldana 2015). Following good qualitative research practice, the above process was undertaken by a team of researchers from various backgrounds to provide different perspectives on the data. This cross-referencing approach is important to provide different perspectives on data (Hayfield and Huxley 2015). Comparing and cross-checking codes, categories, and themes between the research team further helped our positionality and reflexivity and helped minimise any potential researcher bias in our results.

7.5 Stage 2

Using a key informant approach, semi-structured interviews were undertaken with a representative sample of 64 people from across the NSW building and construction industry. Informed by the literature review in Chapter 2, this stage aimed to understand, from the perspective of those working across the NSW building and construction industry, the individual WLB implications of moving to a 5-day week and the level of support for this.

7.5.1 Sampling

The sampling process involved the following steps:

- The NSW MBA emailed a representative from a sample of its member organisations (small, medium and large contracting firms and trade subcontractors) across the entire NSW building and construction industry (commercial building, residential building, civil construction and developers) in urban, regional and remote locations.
- Each was asked if they would be happy to nominate 5 people in their organisation who would be willing to be interviewed from a range of backgrounds (sex, ages, ethnicities etc.) and roles (senior executive; off-site/head office administration/management; on-site management/admin/supervision; construction worker/tradesperson/labourer).
- This avoided a breach of privacy in the MBA sharing member contact details with the research team. These
 representatives were asked to contact the research team directly by email, indicating their willingness to
 participate.
- As a double mechanism to further minimise any potential sponsor bias, the research team, without the MBA's knowledge, then randomly selected respondents for interview from a range of backgrounds (genders, ages, ethnicities, etc) roles (operational/waged and management/salaried). It was also ensured that they worked for a representative range of organisations (small, medium and large contracting firms and trade subcontractors) from across the entire building and construction industry (commercial building, residential building, civil construction and developers) in urban, regional and remote locations.
- Following strict ethics protocols, the research team contacted these randomly selected participants directly to arrange a convenient time and venue for the interview. All participating firms and interviewees were anonymous and not known to the MBA.

Employing the principle of 'theoretical saturation' and an abductive approach to data collection
and analysis, we continued recruiting participants until our interviews were not offering any new
and relevant insights into the WLB implications of the various 5-day week scenarios. This resulted
in a sample of 64 people, as summarised in Table 2.

Table 2: Sample Summary Stage 2

Demographic	Category	Number
Age	16 - 29	16
	30 - 39	26
	40 – 49	12
	50 - 59	9
	60 - 69	1
Sex	Male	49
	Female	15
Marital status	Single with children	3
	Single no children	16
	De factor partner	3
	Married with children	35
	Married no children	7
Role	Senior Director/Executive management	4
	Head office-based management,	
	administration	
	Site-based project management, site	16
	management, supervision, administration	
	Construction Worker/Tradesperson and	20
	Labourer	24
Location	Urban/City	64
	Regional	38
	National	30
	International	5
Market	Commercial	53
	Industrial	10
	Residential	30
	Aged care	9
	Health	19
	Education	20
	Infrastructure civil	5
	Earthworks and remediation	5
	Retail	21
	Hospitality	7
	House building	4
Firm size	Large (250+ employees)	13
	Medium (50-249 employees)	41
	Small (1-49 employees)	10
Project value range	\$0-50 million	33
	\$50 - 300 million	44
	\$300 + million	10

7.5.2 Interview rationale and process

Semi-structured interviews were used in this stage because in line with our bottom-up approach, they allowed the participants to express their WLB experiences in the industry and how a 5-day week would affect this in their own words, free from any influence and direction from the research team. The semi-structured interview questions were deliberately open-ended to enable the participants to describe their perceptions and experiences in their own terms without any preconceived answers from the researchers. As Blackstone (2012) notes, in an evolving and subjective field of study like WLB, data validity can be undermined by using more deterministic and rigid methods like surveys or highly structured interviews. Here, the standardised

manner in which questions are posed, makes it difficult for respondents to articulate the uncertainties and evolving experiences of WLB. Given the uncertain nature of the scenarios we were exploring, semi-structured interviews also allowed respondents the freedom to express their views on their own terms and the researchers to follow unexpected leads not anticipated in the original interview questions (Taylor et al. 2015). By allowing the co-production of narratives through a dialogic exchange between the interviewer and participants, semi-structured interviews provided the research team with deeply reflective stories about our participants' experiences and views.

The semi-structured interviews lasted between 30 minutes and 60 minutes. They involved asking 23 questions in a loose, open-ended format, which allowed unexpected insights important to the respondents to be followed-up where they arose (See APPENDIX B for interview questions and prompts).

7.5.3 Analysis

All interviews were audio-recorded and transcribed verbatim and analysed using thematic analysis following the same five stages as in Stage 1 (see 7.4.3). The only difference was that the analytical framework used for deductive coding was informed by our extensive literature review of international 5-day week and WLB research, and our inductive coding was important to ensure that we were not constrained by previous research findings.

7.6 Stage 3

Informed by the Stage 1 and 2 results, an extensive international literature review of WLB research and a range of standardised WLB instruments as described in Chapter 2, an online anonymous survey was undertaken with 1475 people from across the entire NSW building and construction industry to explore the WLB implications of moving to a 5-day week and the level of support for a 5-day week.

7.6.1 Sampling

The sampling process involved a combination of purposive, stratified and snowball sampling and involved the following steps:

- The NSW MBA emailed an invitation to participate in the online survey to a representative in each of its 8000 member organisations from across the NSW construction industry (small, medium and large contracting firms and trade subcontractors) from various sub-sectors (commercial building, residential building, civil construction and developers) and various regions (urban, regional and remote).
- In line with ethics protocols, the invitation explained the research and asked each representative to distribute the invitation letter, which included a link to the project information sheet and consent form, and survey questions to their employees from a range of backgrounds (genders, ages, ethnicities etc), roles (senior executive; off-site/head office administration/management; on-site management/admin/supervision; construction worker/tradesperson/labourer).
- Survey participants were also asked to distribute the invitation letter and survey link to any other colleagues working in the NSW Building and Construction industry.
- To maximise the response rate, given the number of questions asked in the survey (as discussed below), we used the split questionnaire design (SQD) method developed by Raghunathan and Grizzle (1995). Using the SQD method helped in improving and eliminating the problems often associated with long surveys, such as respondent fatigue, boredom, and high nonresponse rates, which can compromise data quality (Adams and Gale, 1982; Bean and Roszkowski, 1995; Berdie, 1989; Axnfeld et al. 2022).
- We kept the survey open continued the survey until we met the required sample size and had a
 representative sample of industry stakeholders from a range of demographic backgrounds (genders,
 ages, ethnicities etc.), roles (senior executive; off-site/head office administration/management; on-site
 management/admin/supervision; construction worker/tradesperson/labourer), organisations (small,
 medium and large contracting firms and trade subcontractors), sectors (commercial building, residential
 building, civil construction and developers) and regions (urban, regional and remote).

Due to the online nature of the survey, estimating the response rate is not feasible, as we cannot determine the number of individuals in the NSW B&C industry who received the survey invitation. Nevertheless, the sampling process resulted in a sample size of 1,475 (refer to Table 3), which is considered statistically reliable for analysis with a 95% confidence level and a 5% margin of error (see sample size calculation below). This confidence level and margin of error were chosen due to the discrete nature of our data and the potential impact of our research on construction industry policy (Krejcie & Morgan, 1970; Pazzaglia et al., 2016).

We calculated the sample size necessary to meet the research aims and objectives using the widely accepted formula by Newbold et al. (2013). This calculation is based on a population size of 401,564 (NSW B&C industry labour force according to ABS statistics 2023), a confidence level of 95%, and a margin of error of 5%.

For a finite population, the sample size formula is:

$$n = \frac{N \times Z^2 \times p \times (1-p)}{E^2 \times (N-1) + Z^2 \times p \times (1-p)} = \frac{401564 \times 1.96^2 \times 0.5 \times 0.5}{0.05^2 \times (401564-1) + 1.96^2 \times 0.5 \times 0.5} \approx 383.8$$

Where:

- n = sample size
- N = population size (401,564)
- Z = the Z-score corresponding to the desired confidence level. If we set confidence level of 95%, we have
 Z = 1.96 (critical value).
- p = the estimated proportion of the population with the characteristic of interest (we can assume 0.5 for the maximum sample size)
- E = margin of error (0.05).

Table 3: Sample Summary Stage 3

Main group	Sub-groups	Frequency	Percent %
Gender	Male	1180	80
	Female	286	19.4
	Non-Binary	9	0.6
	Total	1475	100
Age	15-24	160	17.4
	25-35	231	25.1
	36-45	199	21.6
	46-55	164	17.8
	56-65	118	12.8
	Over 65	50	5.4
	Total	922	100
Marital status	Single	108	28.4
	Married or long-term de-facto partner	272	71.6
	Total	380	100
Partner or spouse	No	51	19
	Yes	218	81
	Total	269	100
Dependent children	No	210	56.9
•	Yes	159	43.1
	Total	369	100
Household income	Single income	177	46.9
	Dual income	200	53.1
	Total	377	100
Self-employed	No	278	73.5
	Yes	100	26.5
	Total	378	100
Role	Senior Director/Executive management	224	18.5
	Head office-based management,	206	17
	administration		
	Site-based project management, site	528	43.7
	management, supervision, administration		
	Construction Worker/Tradesperson and	251	20.8
	Labourer		
	Total	1209	100
Union member	No	128	52.5
	Yes	116	47.5
	Total	244	100

Apprentice	No	165	77.1
	Yes	49	22.9
	Total	214	100
Cadet	No	603	82.4
	Yes	129	17.6
	Total	732	100
Employment contract	Permanent	343	92.5
	Fixed term	18	4.9
	Casual	10	2.7
	Total	371	100
Pay	Fixed salary (no paid overtime)	271	73.4
	Fixed salary (paid overtime)	22	6
	Hourly wage (paid overtime)	76	20.6
	Total	369	100
Employer size	Micro business (fewer than 10 employees)	80	21.3
	Small business (10 to 49 employees)	69	18.4
	Medium-sized business (50 to 249	91	24.2
	employees)		
	Large business (250 or more people	136	36.2
	employees)		
	Total	376	100
Employer sector	Commercial building	192	50.9
	Residential building (apartments)	49	13
	House building	74	19.6
	Civil and infrastructure	62	16.4
	Total	377	100
Employer type	Principal contractor	281	74.5
	Sub-contractor	60	15.9
	Consultant	36	9.5
	Total	377	100
Employer region	City areas	275	72.2
	Regional areas	102	26.8
	Remote areas	4	1
	Total	381	100
Ethnicity	Oceanian (Australian, New Zealand, Pacific Islands)	231	61.1
	European	83	22
	Middle Eastern	32	8.5
	Asian (South East, North East, Central)	25	6.6
	Americas (North, South and Central)	5	1.3
	African	2	0.5
	Total	378	100
Aboriginal or Torres Strait Islander	No	363	96.3
	Yes	14	3.7
	Total	377	100
Disability or diagnosed long-term-illness	No	364	97.6
	Yes	9	2.4
	Total	373	100

7.6.2 Survey structure and rationale

Data was collected using an online survey because this offered a number of important advantages which aligned with our methodological principles outlined in section 7.2:

- It separated the research team and MBA from the data collection process, avoiding any potential unintentional influence on the results (sponsor bias).
- It offered complete anonymity to our respondents. This was critical in minimising any potential acquiescence, social desirability, sponsor and researcher bias.
- It facilitated access to a large pool of respondents across a broad geographical area, thereby maximising our response rate.

- It was more convenient to the busy and unpredictable lives of our respondents, allowing them to complete
 it at a time of convenience to themselves.
- It allowed us to link questions on a conditional basis. For example, if a respondent felt like their WLB was already excellent, they could skip questions relating to any perceived problems in their WLB.

Like all approaches to data collection, online surveys have some limitations compared to face-to-face surveys. For example, they offer relatively limited control over who completes the survey. However, the many advantages outweighed the disadvantages. Couper's (2000) research into the merits and disadvantages of online surveys shows that self-selection is no more problematic than mail and telephone surveys. Gosling et al.'s (2004) research also showed that in terms of sample representativeness, they also compared favourably to research using other methods, and online surveys have been widely used in WLB research before.

Guided by our in-depth literature review of extant WLB research in Chapters 1 to 6, the survey employed a combination of open, categorical, interval, and Likert-scaled questions based on a variety of validated WLB scales and additional questions about respondents' demographics and lives within and outside the construction industry.

The survey was split into four sections as described below (see APPENDIX C for detailed survey questions), and to maximise the response rate, it was designed to be easy to complete. Questions were posed in a variety of formats to avoid potential habituation bias:

- Section 1 Asked for general demographic information about the respondents (age, gender, occupation, etc) so that we could cross-correlate across the entire NSW Building and Construction industry population using inferential statistics.
- Section 2 Asked about the participant's current working week (worked hours, days, overtime, etc.)
- Section 3 Asked about the participant's current WLB using a range of open and closed questions informed by our detailed literature review in Chapters 1 to 6 and by a number of key WLB publications and standard validated instruments and scales, as described in our literature review. These included:
 - Amatea. E. S., Cross, E. G., Clark, J E, & Bobby C L (1986). Assessing the Work and Family Role Expectations of Career-Oriented Men and Women: The Life Role Salience Scales. Journal of Marriage and the Family, 48(4), p.831. https://doi.org/10.2307/352576
 - Carlson, D.S., Kacmar, K., Williams, L. (2000) Construction and initial validation of a multidimensional measure of work/family conflict. J Vocat Behav 56(2),pp.:249–276
 - Carlson, D.S., Kacmar, K.M., Wayne, J.H, Grzywacz, J.G. (2006) Measuring the positive side of the workfamily interface: development and validation of a work-family enrichment scale. J Vocat Behav 68(1), pp. 131–164. https://doi.org/10.1016/j.jvb.2005.02.002
 - Greenhaus J., Collins, K. & Shaw, D. (2003) The relation between work-family balance and quality of life. J Vocational Behav. 63(3), pp. 510-531.
 - Kodz, J., Harper, H. & Dench, S. (2002) Work-Life Balance: Beyond the Rhetoric, The Institute for Employment Studies, UK.
- Section 4 Asked whether various 5-day week scenarios from stage 1 would change their WLB and, if so, how.

7.6.3 Analysis

Data was analysed using various descriptive (mean, mode, median, frequencies, and cross-tabulation) and inferential non-parametric tests, following pre-testing for Kurtosis and Skewness, which showed that the data was not normally distributed. A Kolmogorov-Smirnov (KS) test was also conducted which confirmed the non-normal distribution of our data. A Relative Importance Indexing (RII) method was used to rank respondents' responses against the various demographic cohort groups. This was chosen over the arithmetic average method because it can derive relative indices within the range of 0–1 for each variable enabling us to undertake relative comparisons of items in our survey. This cannot be achieved by directly comparing the arithmetic averages (i.e., mean) of variables, as variables could have different maximum mean values (Holt, 1997). RII has been widely used by researchers in construction management, including in a CSR context (Loosemore and Lim 2016, Enshassi et al. 2015). In this study, a higher RII indicates that an item is more prevalent than other items with relatively lower RIIs.

Qualitative data from the open questions were analysed using the same thematic analysis approach as in Stages 1 and 2. This was based on 450 detailed comments from survey respondents in response to the open survey questions about what work schedule would best suit their WLB aspirations.

8. RESULTS

This section presents the combined results of the three-stage methodology described above. The combined results are clustered into twenty-six themes, discussed in detail below. These are supported by detailed statistical results in Appendix D and E, referred to in the text.

1

Theme 1: Long hours of work and long working weeks, which can potentially undermine WLB, are common in some parts of the NSW B&C industry. However, it is problematic to make generalised statements across the whole industry. While WLB could be improved for some people by reducing the length of the working day and working week, most people have an acceptable, good or very good WLB.

On average, 61% of people surveyed across our sample had an acceptable, good or very good 'self-perceived' WLB. On average, people worked between 50 and 55 hours a week, just under 10 hours per day, and just over 5 days a week.

However, we also found that:

- 39.8% worked more than 5-days per week;
- 26.1% worked over 55 hrs per week;
- 36.7% more than 10 hrs per day

(Figures 1, 2, 3 and 4, APPENDIX D)

These are the limits at which WLB deteriorates rapidly (Tables 4, 5 and 6 APPENDIX E, Figures 5, 6, 7 APPENDIX D). However, the relationship between WLB and days worked per week, hours worked per day and hours worked per week is complex and non-linear.

Days worked per week, hours worked per week, and hours worked per day varied significantly across our sample (Table 7, APPENDIX E). Overall, we found that the heavy lifting is being done by 'on-project' salaried workers, young people in relatively junior roles and some waged workers (often at their own choice).

Our results indicate that WLB must be 'earned' in the construction industry. Young people often described long hours of work as a 'right of passage' into more senior roles, which provided a better WLB. Many young 'on-project' salaried workers felt powerless in being able to control their WLB and were faced with the choice of either having to accept the status- quo or leave the industry, which few wanted to do (Tables 10, 11, APPENDIX E). Given the large investments of time and money to qualify to work in the industry, many young people felt 'trapped between a rock and a hard place'.

Many people in salaried roles (especially those in 'on-project' roles) felt they had to work overtime to meet the requirements of their jobs. Work pressures were exacerbated even further by long commuting times, partner working commitments, study responsibilities, caring and family responsibilities and if there was no local family support. There was also a widespread sense of inequity and unfairness among salaried workers (especially in 'on-project' roles) in the amount of unpaid overtime that had to be worked compared to their wage-earning colleagues. This perceived inequity was a significant driver in supporting a hard 5-day week (see Theme 5).

Survey and qualitative data indicate that those working on civil infrastructure projects and large commercial, residential and projects in inner city urban areas tended to be relatively more vulnerable to long working hours and weeks (Figures 8 and 9 APPENDIX D). As discussed later in this report, this was linked to the high value of Saturday/weekend working on these projects which meant it was relatively more productive and economical to work a 6-7 day week. The value of Saturdays/weekends was, in turn, related to a wide range of variables such as DA conditions, physical site constraints, numbers of people working on site, project program and budget constraints, the way that risks for project delays are distributed; and levels of liquidated damaged for project delays. This is discussed in more detail in Themes 17 and 18.

Paradoxically, people working on small projects could also be exposed to long hours and working weeks due to a lack of management resourcing to share supervisory responsibilities. In

contrast, significantly fewer hours tended to be worked on residential house building, mid-sized and relatively well-resourced commercial and industrial projects in suburban areas where DA conditions often restrict Saturday working hours. For example, many small house builders in regional areas work 7am to 3.00/3.30 for 4.5 days a week, although on some large residential projects, weekend working is common. Those working in this sector commented that house builders often price and program their WLB into their projects. In contrast, in other parts of the industry, such as large commercial and infrastructure projects, companies often have to sell their employees' WLB to win work, assuming that people will do whatever it takes to complete the job within the program. These differences in the ability to price and program WLB into a project are related to how these projects are procured and contracted (budget and program parameters, risk distributions for project delays and liquidated damages, etc.) and the relative power differences between clients and contractors.

WLB varied across the sample in the following ways:

- Younger people tended to have worse WLB than older people;
- There were no significant differences between men's and women's WLB;
- Those who worked in smaller organisations tended to have a better WLB than those who worked in larger organisations;
- Those working in the house building industry tended to have by far the best WLB. Those working on civil and infrastructure projects had the worst WLB;
- There were no significant differences in WLB between those in single or married and de facto relationships;
- There were no significant differences between salaried and waged workers;
- There were no significant differences between principal contractors and subcontractors compared to consultants who have a very good WLB;
- There was no significant difference between those working in regional and city areas.

(Table 8 APPENDIX E, Figure 10 APPENDIX D)

The balance between work and non-work life seemed healthy across the whole sample with respondents spending:

- 58.7% of their time at work:
- 41.3% on other non-work related activities;
 - o 17.2% with family;
 - 9.3% on house duties;
 - 8.1% on social activities;
 - 4.1% on study commitments;
 - 1.5% in community work;
 - 1.1% for caring responsibilities.

(Figure 11 APPENDIX D).

There were no significant differences in time spent on different activities across our sample. However, there were some minor differences between some demographic groups:

- Men tended to spend more time at work than women;
- Women tended to spend more time on house duties than men;
- Single people tended to spend more time at work than married/de-factor couples;
- Young people (15-24) tended to spend more time at work than any other age group;
- People aged 36-45 tended to spend more time with their families than any other age group;
- People working for subcontractors tended to spend more time at work than principal contractors and consultants;
- Those working for medium-sized businesses, on commercial projects and in city areas tended to spend the most time at work.
- People in 'on-project' wage-earning operative/trade/labouring roles tended to spend the
 most time at work, followed by 'on-project' salaried workers in professional and supervisor
 roles and then 'off-project' salaried staff in management/leadership and administrative roles;
- People in 'off-project' salaried management/leadership and administrative roles tended to spend the most time with their families, followed by 'on-project' salaried workers in professional and supervisor roles and then by 'on-project' wage-earning in operative/trade/ labouring roles;

(Table 9 APPENDIX E, Figure 12 APPENDIX D)

Our results indicated that the main causes of poor WLB were work-related (70% of all factors) rather than non-work-related. The top five 'work-related' causes of poor WLB were:

- 1. Long working hours;
- 2. Working weekends;
- 3. Time pressures;
- 4. Commuting time;
- 5. High work intensity (ratio of work expectations to time given).

(Figure 13, APPENDIX D).

The top five reasons why people worked weekends were also all work-related and gave some insights into the work culture of the industry:

- 1. Because it is expected;
- 2. Because I can't get all my work done in the week;
- 3. Because I have no choice;
- 4. Because my career will suffer if I don't do it;
- 5. Because everyone does it.

(Figure 14 APPENDIX D)

Weekend working was especially common for those working in the commercial and residential building sectors, for principal contractors, for large businesses and in city areas (Figures 15, 16, 17 and 18, APPENDIX D).

The top five 'non-work-related' factors which negatively affected WLB were:

- 1. Cost of living pressures;
- 2. House duties (cleaning, gardening etc);
- 3. Family responsibilities
- 4. Transportation problems;
- 5. Parental responsibilities.

(Figure 19, APPENDIX D).

People's existing WLB had numerous impacts on their lives (Tables 10, 11, 12, 13, APPENDIX E). The top ten most negative impacts across the whole sample in rank order were:

- 1. Ability to relax;
- 2. Fatigue;
- 3. Sleep;
- 4. Stress in work;
- 5. Exercise and leisure time;
- 6. Diet;
- 7. Stress at home;
- 8. Mental health;
- 9. Physical health/fitness;
- 10. Spouse/romantic relationships.

These negative impacts mostly relate to the non-work-related aspects of people's lives which raises questions about the impact of poor WLB on people's work performance. We also found that these impacts were broadly the same across different segments of the sample (age, sex, role, salaried/waged, types of employers and projects etc.) One exception was single people whose lives appeared to be uniquely negatively affected in terms of:

- 1. Plans to start a family;
- 2. General mood:
- 3. Romantic relationships;
- 4. Sleep;
- 5. Leisure time.

Across all groups, those most negatively affected by their current WLB were:

- Single people;
- · Women;
- On-project salaried workers (no paid overtime);
- Those working for subcontractors;
- Those working on large civil engineering projects.

When asked about their ideal WLB, respondents emphasised the need for more time and resources to do their jobs and greater flexibility and control over when, where and how they worked (without being stigmatised for it).

The top five ways to improve WLB across the sample were perceived to be:

- 1. More realistic project programs;
- 2. Greater flexibility in hours worked;
- 3. Resource projects appropriately;
- 4. More realistic project budgets;
- 5. Greater flexibility in when, where and how one works.

(Table 14, APPENDIX E, Figure 20 APPENDIX D).

Most people, when interviewed, aspired to work significantly fewer hours and days than they were currently working (within the range of 35-45 hours a week, for 4/5 days a week). Very few people wanted the opportunity to work more hours and days. The top five aspirations were:

- 1. Having weekends free:
- 2. Working fewer days per week;
- 3. Working fewer hours per week;
- 4. Having more realistic work demands;
- 5. More positive work cultures.

(Table 15, APPENDIX E)

However, asking people if they wanted to work fewer hours or days is a leading question. When the potential consequences were made clear levels of support changed significantly. It was a consistent theme across all demographics that few people were prepared to entertain a reduction in pay for a shorter working week. Most people also had significant concerns about working a compressed working week (longer hours during the week) (see Themes 4 and 6). This was a special concern for those people in jobs which were physically or mentally demanding or who had family, caring or other commitments during the week. Most people preferred to work more productively to compensate for a shorter working week. However, as discussed later in these results, this option also came with many challenges. First, it is not easy to increase productivity by the required amount (16.7%) in many jobs (especially those that are physically or mentally demanding). Second, it is difficult to accurately measure productivity in many jobs. Third, it is difficult to make an allowance for interference and the productivity interdependencies between different jobs/trades. Fourth, if productivity can be increased, then this begs the question of why it cannot be done now and suggests that people are currently pacing themselves for a longer working week.

Theme 2: The workforce can be divided into three main groups of workers, according to hours and days worked and WLB

Overall, our results point to three main groups of workers in relation to hours and days worked and WLB:

- GROUP 1 Off-project salaried staff in management/leadership and administrative roles
- GROUP 2 On-project salaried workers in professional and supervisor roles:
 - Site-based administrators (WHS, enviros, etc.)
 - o Project managers, site foremen, site managers, site engineers and supervisors
- GROUP 3 On-project wage earners in operative/trade/labouring roles

2

These results indicate that the current categorisation of people into salaried and waged workers found in the 5-day week literature is overly simplistic. Interestingly, this new delineation also extends into people's attitudes towards the 5-day week (see Theme 4)

GROUP 1 - Off-project salaried workers in senior management, leadership, contract management and administrative support roles:

This group generally had the most predictable and controllable hours of all three groups because of their relative independence from the day-to-day demands and unpredictabilities of individual projects. On the other hand, this group tended to work across multiple projects and was, therefore, subjected to multiple project demands. On average:

- 91.6% worked more than 5 days a week
- 33.1% worked more than 10 hours a day
- 22.4% worked over than 55 hours a week

(Table 16 APPENDIX E)

Some roles in this group worked very long hours (10-12 hours a day 6-7 days a week) for short periods of time (For example, estimators leading up to a bid submission). It was also common for people in this group to be available by phone or email on weekends and to occasionally work on Saturdays, especially if there was an incident or emergency. On average, in this group:

- 55.2% worked on weekends (10.4% work every weekend)
- 39.8% were available constantly by email or phone

(Table 17, APPENDIX E)

People's performance in this group was not generally measured by time spent at work but by outcomes. This was especially the case for more senior people in strategic leadership roles whose work is continuous, thoughtful, and reflective in nature. This type of work results in very blurred boundaries between work life and home life with large amounts of unpaid overtime. This often creates pressure to put work commitments ahead of personal and family responsibilities. Many senior and older members of this group accepted this as a longstanding and inevitable part of their jobs and of working in the construction industry. In contrast, many more junior and younger respondents expressed resentment at the amount of unpaid overtime they were working compared to their wage-earning counterparts on site (and people in other industries).

On average, 79% of this group work unpaid overtime (12% over 20 hours per week) (Table 18, APPENDIX E).

Most respondents in this group were generally happy with their WLB and rarely questioned it. On average, 75% of this group reported that their WLB was acceptable, good or very good (Figure 21, APPENDIX D). This group judged their hours of work and WLB in relation to traditional industry norms. It argued that relatively high rates of pay in construction, compared to other sectors, compensate for the longer hours worked. Most argued that people sign up for the industry knowing it involves working 6-days and that the industry is not trying to hide anything. However, the narratives of this group were often punctuated by regrets about the cumulative negative impacts of long work hours on personal lives, such as marriage breakdowns and sacrificing time with family and friends. We found that younger people within this group were aware of these risks and were more likely than older workers to draw clear and non-negotiable boundaries between their lives within and outside work.

GROUP 2 - On-project salaried workers in professional and supervisor roles:

These people worked at the coalface of the project and were highly exposed to day-to-day project demands. They tended to be younger people in the early stages of their careers, working as junior managers or cadets or having progressed from a trade into a site management position. Many in this group were also in the early years of building a family, and their partner often worked.

While hours worked and days worked varied over the life of the project, from role to role and

Project-to-project, this group had the highest hours of work, longest working weeks, and highest work intensity among all respondents. They also had the highest levels of unpaid overtime and the poorest self-perceived WLB (often trying to balance work, life, family and study responsibilities).

On average:

- 90.9% work more than 5 days a week
- 48.4% work more than 10 hours a day
- 29.9% work over than 55 hours a week

(Table 16, APPENDIX E)

88.4% of this group worked unpaid overtime (10.6% over 20 hours per week) (Table 19 APPENDIX E).

On average:

- 79.9% worked on weekends
- 24.8% were available constantly by email or phone

(Table 20, APPENDIX E)

There was a high perceived correlation for many people in this group between doing long hours and being on top of one's job. There was also a strong sense of needing to be 'seen in work' to maximise the chances of progression in their careers (although this depended heavily on the culture of the project and organisation they worked in). Many in this group were resentful at the amount of unpaid overtime they were working compared to the age-earning workers they were directly supervising on-site.

This group had the longest hours and worst WLB of all three groups (Figures 22 and 23, APPENDIX D). 48.1% of this group indicated a poor or very poor self-perceived WLB (Figure 24, APPENDIX D). This was exacerbated by relatively long commuting hours. On average, 37.4% spent more than 11 hrs commuting per week (Figure 25, APPENDIX D).

In terms of hours worked, we found two sub-groups within this category:

Site-based administrators (WHS, enviros, etc):

This sub-group typically works 8-12 hours a day for 5 days a week (6.30/7.00 am to 4.30/5.00pm) for 50-60 hrs a week plus the occasional late night and weekend when needed (typically once or less a month). These people often work across multiple projects and may travel a lot and work shifts. Many described having an acceptable WLB but being constantly available for work, even on their days off.

• Contract managers, project managers, Site foremen, site managers, site engineers, site supervisors and some leading hands:

This group tended to have the worst WLB and work the longest hours. They typically worked 6 days a week and 10-12+ hours a day (6.00/6.30 am to 5.00/6.00pm). They also commonly worked a 5-10-hour day on Saturdays 1-3 times a month (depending on DA conditions, project demands and project resourcing) - especially for younger or more junior staff who haven't earned their stripes. These long work hours of around 55-65+ hrs a week were related to their responsibilities to supervise trades, report on their progress after they have left the site and then plan follow-on activities the next day or week. This means there was no 1:1 ratio of hours worked between those on site and those who must supervise them.

This group's hours were also the most unpredictable and uncontrollable within our sample and could increase significantly for a host of project-related reasons such as being present for critical activities such as concrete pours; crane erection or road closures; noisy work, evening or weekend working required to avoid interfacing with client activities; when a project is nearing practical completion; or when there is an unexpected event which creates a delay. During these times, hours can increase to 12-14 hours a day and 7 days a week.

This means they can be at work until 10pm and then back to work at 6am the next day. Those working on smaller projects without adequate resourcing were often exposed to very long hours and weeks because there was no way of sharing the load of weekend working and late hours during the week.

Although there can be quiet periods within projects to compensate for the very busy periods of long working hours and weeks, many described being shifted between different projects by their employers to avoid any downtime. Most of the people in this group accepted long hours as a part of their jobs, seeing themselves as having no choice because of their youth, junior status and the high dependency of their projects on their roles. Most saw this as necessary to earn their right to a better WLB in more senior roles.

GROUP 3 - On-project wage earners in operative/trade/labouring roles:

This group's hours and WLB vary greatly compared to the other groups and were dictated by their trade, the nature of their project, the culture of their project and employer, their EBA, and the amount of overtime they were required to work or chose to work. Different projects and companies require different levels of overtime or offer different opportunities for overtime depending on site constraints, project programs and DA conditions. For example, on many mid-sized projects in sub-urban locations, hours worked range from 40-50 hours a week for 5-6 days a week (typically 6.00/7.00 am to 3.00/6.00 pm weekdays and 7.00 am - 1.00 pm on Saturdays). People's WLB on these types of projects were generally described as good. In contrast, on larger commercial urban building and infrastructure projects, hours can increase to 60-70+ hours a week (10-12 hours a day – 6.00am to 8.00pm during the week plus 8-10 hours on a Saturday). Shiftwork is also common on these types of projects where people's WLB was often described as poor to very poor, with some disturbing stories of people being coerced to work long hours and even buying clothes and food to enable them to sleep on sites.

On average:

- 95.7% worked more than 5 days a week
- 20.7% worked more than 10 hours a day
- 16.5% worked over than 55 hours a week

(Table 16, APPENDIX E)

This group had the best self-perceived WLB with 62.5% describing their WLB as acceptable, good or very good (Figure 26, APPENDIX D).

However, given that this group is typically paid overtime for the extra hours they work over their contracted agreement, long daily hours and 6-7 day weeks were a conscious choice for many people who felt that their poor WLB was compensated for by the very high salaries they could earn. Conversely, many also chose not to work weekends and just work a 5-day week.

Our results also show that different trades work different times and hours according to the nature of their work. For example, while it is a generalisation, on mid-sized projects, steel fixers generally start at 7.00 and finish at 2.30-3.00, while form workers tend to finish at 4.00 and crane operators at 5.00, while concreters and crew foremen may be there until 6.00 or even later if there is a late concrete pour. Some trades like interior fit-out trades or heavier trades such as steel fixers, bricklayers and form workers, whose work is taxing on their bodies due to physical demands (such as heavy lifting or exposure to elements), tend to prefer to work weekends than longer hours during the week. On the other hand, some trades (especially older workers) prefer to finish early during the week and will not take overtime if offered. In contrast, many tradespeople (especially younger people, those saving to buy something like a property or with mortgages to pay off) tend to prefer more overtime. Young people also tend to be more willing to work longer hours than older workers to maximise the potential for overtime while work is plentiful and while they are fit and able to do so. Many tradespeople are very conscious that due to the physical nature of their work, their working lives are likely to be shorter than office-based workers and that they need to maximise their earning potential while they are fit and able. Many also voluntarily work a second job on weekends to earn extra income if they cannot secure weekend work.

In addition to a person's trade, we found significant variations in daily hours and weekends worked were also related to project demands, events and constraints; personal circumstances; preferences around WLB; attitudes towards money relative to life outside work; the amount of work and overtime available; exposure to potential fatigue and other safety issues associated with working long hours; logistical opportunities to work more productively through access to crane time on weekends or working without interruptions from other trades; trade-related norms around working hours and weekend working; and cultural group preferences which are often linked to specific trades. Many people in this group, and the other project-based groups, also travel long distances to work, adding more time to their working day. Compared to other groups, this group does not have the flexibility to work from home. However, their work is typically governed by an EBA, which provides a wide range of provisions to support WLB, such as RDOs, leave entitlements, travel allowances and a 9-day fortnight.

Many people in this group also noted that as projects approached practical completion or if there is a project delay (for which the contractor or subcontractor holds the risk), hours can increase dramatically (often to 7 days a week and 10-12 hours a day) in the rush to finish on time and avoid liquidated damages. Conversely, projects have quiet periods when people's work hours improve. However, many said that it is common to be moved to other projects by their employer to maximise productivity. Alternatively, some may request to move to maximise overtime opportunities.

Theme 3: Long hours of work and a 6-day week have become institutionalised in some parts of the construction industry.

While hours of work and days worked a week varied significantly across our sample, many of the more experienced respondents felt that long working hours and a 6-day week had gradually become institutionalised across parts of the construction industry - especially on larger and more complex commercial and government projects in inner-city urban areas. Many of the older and more experienced respondents who worked in these areas said that when they started working, Saturday working was possible but rare or at one's discretion. However, it was now described as expected or demanded on most projects.

The main reasons put forward to explain why a 6-day week had become institutionalised included:

- Projects being assessed for feasibility, planned and designed on a 6-day week model to meet increasingly demanding client program and budget requirements (recently exacerbated by the increasing cost of project finance);
- A work culture which has normalised adherence to long hours of work and presenteeism (often as a rite of passage into more senior and privileged roles);
- Competitive tendering and the high likelihood of clients choosing the lowest price and shortest program which is generally a 6-day week;
- Increasingly demanding project programs and budgets which lead to a lack of adequate resources and time to finish a project on time;
- An increasingly uncertain construction environment, which has exacerbated the risks of unexpected events for contractors (such as new technologies, labour shortages and inclement weather related to climate change). This increasingly necessitates weekend working to catch up on the program;
- The increasing costs of finance and generally unstable economic environment making shorter project programs more important for clients and developers;
- The increasing use of fixed-term contracts, which transfer risks of project delays to contractors and subcontractors. This increases the likelihood of working weekends to avoid project delays;
- The increased use and scale of liquidated damages (LDs) to penalise contractors and subcontractors for project delays;
- Poor project planning and a psychological dependency by project programmers, managers and workers on using Saturdays as a general catch-up day or float;
- Psychological, institutional, organisational and contractual barriers to alternative working practices and innovations which could potentially increase productivity and efficiency;
- The increasing cost of living creating a financial dependency on weekend overtime pay (which is often undemanding) for many waged workers (especially young workers);
- EBA provisions which have gradually reduced the standard working week have increased

dependency on overtime at an individual and organisational level to get the job done within tighter programs;

- EBA provisions, which have gradually increased the cost of labour year-on-year with no commensurate increase in productivity, have put more pressure to work a 6-day week to finish projects on time and reduce time-related program costs in other areas. On top of this, Unions are pushing for a 9-day fortnight, which will reduce productivity further;
- Falling productivity in general across the industry, coupled with increasingly demanding programs and budgets.

Theme 4: Improving WLB is more about workplace flexibility and providing people with greater control over when, how and where they work than it is about mandating a 5-day week. Increasing flexibility is also relatively less risky for workers, businesses and clients than mandating a 5-day week.

While most people wanted to work fewer hours and days a week, there was almost universal agreement across our sample that the best way to improve WLB was to increase people's access to flexible working rather than rigidly limiting hours or days worked by imposing a 5-day week. Flexibility meant people had more control over when, where, how and how long they worked. This allowed people to juggle continuously changing projects and life demands and to put quality time into both domains without being under stress or feeling guilty from one side or the other.

Many firms had implemented flexibility initiatives at relatively little cost and found that they had little if any, impact on project programs and budgets. Examples of initiatives implemented included:

- Improving access for both men and women to flexible working arrangements such as remote
 working, time in lieu, rostered days off, family and other types of personal leave, childcare
 support, flexitime and job sharing, etc;
- Project-based initiatives such as rostering and shifting pre-start site meetings to later in the morning to allow people to arrive slightly later;
- Improved project planning to avoid pressures at the end of projects, which reduces the scope for flexibility;
- Improving technology to facilitate flexible working;
- Challenging 'old school' cultures of long hours and presenteeism

In terms of flexibility in 'hours worked,' those who had the least flexibility were women; single people; younger people (25-35 yrs); on-project salaried workers in professional and supervisor roles (Group 2); salaried workers; those working for subcontractors; those working for larger firms; and those working on civil engineering and infrastructure projects (Table 22 APPENDIX E).

In terms of flexibility in 'where, when and how one works' those who had the least flexibility were men; single people; younger people (25-35 yrs); on-project salaried workers in professional and supervisor roles (Group 2); salaried workers; those working for subcontractors; those working for medium/larger firms; and those working on civil engineering and infrastructure projects (Table 22, APPENDIX E).

Theme 5: There is significant inequality of access to flexible working across the construction workforce, which makes a 5-day week attractive to many people.

Flexibility provisions in the construction industry were often compared poorly to other industries. While improving flexibility was considered to be the best way to improve WLB, significant inequalities in access to flexible working across the workforce (Table 21, 22 APPENDIX E) and anticipated difficulties in implementing flexible work practices in practice due to resistant work cultures meant that 59.7% of respondents (especially those disadvantaged by the current system such as on-project salaried workers) were in favour of an imposed hard 5-day week (Figure 27, APPENDIX D). Advocates of a mandated hard 5-day week argued that closing sites on weekends was the only way to ensure people would not work weekends. In contrast, a soft 5-day week could be abused because it provided the option of moving to a 6-day week if program pressures started to accumulate (as they inevitably do on many projects).

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However, qualitative data showed that any support for a hard 5-day week was highly dependent on the type of 5-day model being imposed and whether clients would be willing to accept or at least share the significant program and budget risks involved (see Themes 6, 17 and 18). For example, there were widespread concerns that a compressed hard 5-day week model (of longer working hours during the week) would reduce people's flexibility by limiting their ability to undertake essential tasks during the week such as shopping, socialising and caring responsibilities (see also Theme 6). Many respondents were also concerned that an imposed hard 5-day week could result in significant liquidated damages if clients were unwilling to adjust their programs to reflect their inability to work weekends (see Themes 6, 17 and 18). Since most clients were expected to be resistant to sharing or taking these risks (especially private sector clients), many were concerned that this could result in increased project cancellations, delays and bankruptcies in an already struggling industry. This would ultimately undermine people's WLB in the longer term.

Given the potential personal and business downsides associated with a mandated hard 5-day week, improving equality of access to flexibility was considered a less risky, costly and more effective way to improve WLB for most people in the industry. We found that if equality of access to workplace flexibility were improved, the support for a mandated hard 5-day week would fall away. Our findings indicate that this could be achieved in the following ways:

• Develop formal flexibility policies and communicate them effectively across the workforce:

There was a high variability in knowledge about flexibility policies (such as personal and parental leave and rostering) and perceptions of policy implementation across our sample. Knowledge of flexibility tended to be far better in larger firms although there was a widespread perception that they were not always implemented, monitored and enforced at a project level. In some smaller firms, there was no knowledge of formal flexibility policies at all.

 Implement, monitor and enforce formal flexibility policies and initiatives across the whole workforce:

We found that a lack of clear or formal policies or policy implementation, monitoring, and enforcement in many companies meant that many respondents depended on their flexibility in unspoken 'gentlemen' agreements with their employers or individual supervisors. These were unreliable and vulnerable to personal relationships with their supervisors and their attitudes towards WLB.

• Ensure flexibility initiatives are equally available to everyone, regardless of their project circumstances:

Opportunities for flexibility are related to the type of project a person works on and the type of firm they work for. For example, we found that people working on a small project or who work in a small firm tend to have less spare resources/coverage available to provide flexibility. The success of a small firm or small job is much more dependent on them as individuals than on a large project and firm, where there tend to be more spare resources to enable flexible working arrangements to occur with minimal impact on productivity.

• Ensure flexibility initiatives are formal rather than informal and equally available to young and old:

Flexibility was widely described as an 'earned entitlement' rather than a universal and automatic right. Many people earn their flexibility in the industry over time and by building trust and seniority in their business. Younger workers or new employees are disadvantaged by this informal system of unspoken rules and have little option to work long inflexible hours and 'do their time' as their senior managers have done. This type of culture generated intergenerational tensions, unfairness and variation in hours worked across people of different ages within the same project or firm. Many younger people felt uncomfortable about having conversations about flexibility and WLB and that issues relating to poor WLB were commonly described as undiscussable and brushed under the carpet.

Develop ways to measure a person's output which are not based on hours worked:

Many argued that flexibility requires an individual worker's output to be measurable because managers need assurance that flexible working arrangements are not undermining performance. For many in the industry, this is a problem where outputs cannot be easily measured. There is, therefore, a tendency for managers to fall back on hours worked as a measure of effort.

• Ensure flexibility policies and initiatives are both responsive to the needs of individual project teams and individuals:

Many respondents (especially those in on-project roles) emphasised strong loyalty to their project teams when discussing flexibility. They also talked about being indispensable to and trapped by their projects and having to be constantly available for the project even when off work. For these people, formal flexibility policies were often overridden by the needs of their project teams, which informally held each other accountable for project performance.

• Ensure flexibility initiatives are equally available to men and women:

Our results indicated perceptions that opportunities for flexibility are determined by one's sex, with many respondents commenting that men find it harder to negotiate flexibility because of the industry's macho culture and a perception that many flexibility policies are mainly there to support women rather than men.

Ensure flexibility initiatives are equally available to everyone, regardless of their role:

We found that opportunities for flexibility were related to the role someone performs. Regarding the three types of roles identified in Theme 1, off-project respondents had the highest flexibility in terms of when and where they work, followed by on-project tradespeople and then on-project supervisors and site managers. Most off-project administrative jobs can be done at home, and jobs can be shared or worked part-time. Technology advances since COVID have opened up more opportunities and expectations within this group to work from home than any other group in our sample. There also seems to be more redundancy in the system at this level. This makes flexible working easier because people can cover for each other.

In contrast, most on-project jobs (especially supervisory roles) are less flexible since they are heavily tied to tradespeople's working times and project schedules and cannot be done at home. Many respondents felt that much more thought goes into project planning around construction trades and materials logistics compared to planning supervisory resources needed to build it on time and within budget. Flexibility for these workers is also constrained by high levels of project-related work intensity, a lack of redundancy and spare resources in the system at the project level (especially on smaller projects), and the need for consistency of information and narrative over the project's life. Coupled with the need to be constantly available (even on days off) if something goes wrong on a project or if someone needs information (which often isn't available from anyone else), flexibility initiatives like flexi-time, part-time work or job sharing become very challenging, especially for smaller businesses.

This lack of control over working hours is especially acute for on-project workers when projects are approaching practical completion because accumulated delays and lack of available float can compress programs even further. Some trades (such as finishing trades) are naturally programmed towards the end of a project and are more vulnerable to this potential risk. Furthermore, the work of some heavy trades, such as bricklaying, concreting and steel fixing, cannot easily be compressed into shorter working weeks. It was widely agreed that a hard 5-day week could exacerbate these on-project and off-project inequities because a compressed week of longer working days is easier for off-project workers than many on-project workers. For example, trades workers engaged in physically or mentally demanding jobs would be less able to take advantage of a hard 5-day week because of the extra fatigue it could generate during the longer working day.

Theme 6: Support for a 5-day week varies across the industry depending on a wide range of variables and the WLB benefits are not clear, universal or guaranteed.

Given the inequal access to flexibility and overtime pay we found above and the general mistrust that flexibility provisions will be implemented in practice, many respondents felt that a mandated hard 5-day week could potentially improve their WLB by forcing the industry to shut down on weekends. However, we also found that support for a hard 5-day week was often highly conditional and varied significantly across our sample depending on a range of factors:

(Tables 23, 24, 25 APPENDIX E; Figures 28, 29, 30 APPENDIX D)

- The 5-day model employed: 81.5% of respondents preferred a hard 5-day week to a soft 5-day week. However, few people were prepared to take a pay cut, and most felt that a compressed working week would not improve their WLB. The majority of respondents preferred to work more productively during the week to make up for the lost 6th day (a 4-day week 100:80:100 type model);
- The level of risk and physical and mental fatigue involved in one's job: Highly demanding work makes compressed working weeks more risky;
- The role one performs and how one is paid: Group 2 (On-project salaried workers in professional and supervisor roles) most prefer to work a hard 5-day week with weekends off.
- The nature of the project one is working, which determines the value of weekend working: client program and budget parameters, liquidated damaged, client willingness to share risk, project complexity, size, location, logistics, need for weekend working, DA conditions etc.;
- Existing hours of work, working conditions, flexibilities, WLB provisions and the culture of the organisation and project one works in;
- Demographics such as sex, age, job, ethnicity, personal preferences and circumstances, etc..
 Preferences for a hard 5-day week were strongest among respondents who were married,
 Group 2 (On-project salaried workers in professional and supervisor roles), older workers,
 25-35 age group, salaried workers (no paid overtime), those working for subcontractors,
 those working in large contracting organisations and on commercial projects in city areas.
- General economic conditions: For example, at a business level, increasing costs (materials, labour, interest rates, etc) reduce the viability of the extra time and costs involved in a 5-day week (see Themes 17 and 18). At a personal level, the increasing cost of living magnifies the potential loss of overtime payments for construction workers who cannot make up for the loss of overtime during the week.

Importantly, we also found that support for a 5-day week was often based on emotions and ignorance of its implications and the various models available. We found that asking someone if they supported a 5-day week without discussing the potential personal and business implications (see Themes 17 and 18) and various 5-day week scenarios was a leading question which would inevitably elicit a positive response. However, when these implications and options were made clear, support for a 5-day week was significantly reduced. For example, if construction clients are not prepared to adjust their programs and budgets to accommodate a hard 5-day week and if manpower cannot be increased during the week to compensate for the lost Saturday, then our findings identify three potential implications for people's working hours and days (especially in the case of a hard 5-day week):

- Working longer hours during the week to make up for the lost 6th day while keeping productivity, work intensity and pay the same (a compressed working week);
- Increasing productivity by 16.7% to make up for the lost 6th day of work and to maintain the same pay and hours worked;
- Taking a pay cut of 16.7% to account for the lower number of days worked while keeping working hours and productivity the same.

Across the sample, we found a very strong preference for working more productively, less support for working a longer (compressed) working week and very little support for taking a pay cut.

Considering the above, we found that attitudes towards a 5-day week could be generally arranged into the three groups of workers identified in Theme 1. These are discussed in more detail below. However, we note that there were still significant variations in opinions within these groups, making it impossible to draw any generalised conclusions about support for a 5-day

week across the industry and its potential impact on people's WLB.

GROUP 1 - Off-project salaried staff in management and administrative roles:

This group was generally the most senior and oldest group, and they found it hard to separate their own personal interests from those of their business. While accepting that a 5-day week could have some WLB and mental and physical health benefits for some people in the industry, they didn't consider these benefits as independent from the potential economic impacts on businesses that ultimately employed people within the industry.

This group argued that the business case for a 5-day week changes from project to project, and there are projects that suit a hard 5-day week, a soft 5-day week, and a 6-day week. This depends on a range of project variables that determine the relative value of Saturday working. These variables include project complexity and resourcing; client's priorities and demands; client attitudes towards risk for delays and liquidated damages; DA conditions; project location; logistics of material deliveries; size of project and numbers of people working productively on Saturdays; client requirements around hours of work on occupied sites; the economic conditions prevailing at the time etc. These are further discussed later in this report.

At a personal level, there was strong support for a hard 5-day week (Figure 28 APPENDIX D, Tables 23, 24 APPENDIX E) based on increasing their productivity during the week rather than working longer hours (a compressed model) and taking a pay cut. However, a soft 5-day week was seen as the best compromise between business and individual interests because it gave people the flexibility to work 5-days or 6-day a week to suit their own personal WLB preferences but also minimises risk for the industry by keeping sites open on the weekends (as potential catch-up days; general float; for activities which put the public at risk; and for materials delivery and planning for the next week). While some were concerned that a soft 5-day week could be manipulated to undermine the benefits of a 5-day week by tempting people to work a 6-day week (because the site was always open on Saturday), many businesses were also already working this model without significant economic and program impacts.

In contrast, at a business level, there was a high level of scepticism about the economic viability and WLB benefits of a hard 5-day week. As discussed in Themes 17 and 18, a hard 5-day week was also considered to have potentially significant economic costs to the industry, which would ultimately undermine people's WLB in the longer term. Many argued that it was not possible to separate these business concerns from their own individual preferences for a hard 5-day week. However, the business viability of a hard 5-day week was considered to vary from project to project depending on the relative value of Saturday working to businesses and workers. The factors that determine this are discussed in more detail later in this report. For example, Saturday working was perceived to be of relatively high value in large urban projects with tight programs and budgets and logistical challenges where DA conditions allowed it to occur. Infrastructure projects which require road closures also place a high value on weekend working, as do projects which may require weekend working to not interfere with daily client business activities. Furthermore, those who had worked on a compressed, hard 5-day week project had experienced problems in tradespeople not taking the option of working the extra hours during the week in lieu of lost weekend working, resulting in potential labour shortages and project delays. This is discussed in later themes along with many of our serious questions about the WLB benefits and viability of a hard 5-day week.

Most importantly, any support for a hard 5-day week from this group was heavily contingent on it being standardised and accepted across the whole industry supply and demand chain. There was a strong consensus that no contractor could win a job on a 5-day week if their competitor was pricing it for 6 days a week. In other words, they approved of the whole industry adopting a 5-day week but not individual companies going it alone because of the competitive disadvantage that this would produce.

Therefore, any support for a hard 5-day week was totally contingent on:

- Clients changing their program and budget parameters to accommodate a hard 5-day week;
- Standardising it across their projects (and ideally the industry as a whole) to ensure a level playing field where no one was disadvantaged by tendering a 5-day project option against a 6-day competitor;

- Being more open and transparent about why they want a 5-day week and how it will be assessed (especially if 6-day tenders are also welcomed);
- Reducing the incentives for contractors to work on weekends by sharing the risks of project delays and reducing liquidated damages to sustainable levels.

However, there was significant doubt whether this would happen, apart from some specific government clients (although experience had shown a lack of internal consistency in practices even then). Most agreed that private clients were especially unlikely to change project parameters to suit a 5-day week because to do so would undermine the economic viability of many projects where time is of the essence. Proposals to adopt a hard 5-day week were a special concern for smaller contractors and subcontractors who did not have the power to influence their clients to accept or at least share the risk of a hard 5-day week. There was some resentment among respondents from smaller businesses that salaried workers were driving the current 5-day week debate in larger contractors who were not representative of the industry's diversity at both a personal and organisational level. Smaller firms were especially concerned that if clients were persuaded to require a hard 5-day week, the industry would bear the cost, which would be especially problematic for smaller firms. In other words, a hard 5-day week could potentially force smaller firms out of the market and reduce competition in the industry.

GROUP 2 - On-project salaried workers in professional and supervisor roles:

Group 2 has the greatest level of support for a hard 5-day week, based on increasing their productivity during the week rather than working longer hours (a compressed working week) or taking a pay cut (Figure 28 APPENDIX D, Tables 23, 25 APPENDIX E). This was because many worked long days anyway, and their productivity was hard to measure (concerningly, many felt they could do their job in 5 days by reducing breaks during the day). A pay cut was unacceptable because this group was already working unpaid overtime, which was well in excess of their employment contract hours of 38 hrs a week (plus reasonable overtime). This group also faced the highest cost of living pressures because they often had mortgages and young families.

While some liked a soft 5-day week because of the greater flexibility it gave them to have time off during the week (and work the Saturdays if they felt it was necessary to catch up on work), there was a strong preference for a hard 5-day week. This was because:

- It forced the whole industry (including trades) to shut down on weekends (this group's work hours were linked intimately to trade's peoples work hours because they had to supervise them).
- It would give people a weekend off to relax, dissociate from work, recuperate, re-energise and re-set for the next working week and to socialise on the weekend with friends and family and to attend sporting events etc.
- For those with young families (this was the youngest group, often with new families), it avoided the challenges of finding childcare on weekends.
- It would allow them to work fewer hours for the same wages based on increasing their productivity during the week rather than working longer hours.

However, as in GROUP 1, this group's general support for a hard 5-day week at a personal level was moderated by concerns about the viability of a hard 5-day week and its impact on their project teams (there was a high degree of loyalty to their project teams in this group). As in GROUP 1, this group was unable to separate their own individual WLB interests from potential impacts on their projects, which often didn't align. The main concerns were potential cost and program implications on their projects, whether some heavy trades would not work longer daily hours, and whether DA conditions restricting noise in residential areas during the week would prevent activities like demolition, which are often done on weekends. No respondents in this group could see their clients accommodating a hard 5-day week by adjusting their budgets and programs, and few could see their employers going it alone and bidding a hard 5-day week against a 6-day week competitor without sacrificing their competitiveness (although this may be possible on a soft 5-day week).

However, some worried that the compressed hard 5-day model with extended days during the week could not work on every project since it would be difficult for some trades to work extended weekly workdays (see Group 3 results below). Furthermore, many worried that a hard 5-day week could make their WLB worse for a number of reasons:

- It extended hours during the week and took time away from key family activities such as school drop-off and pick-ups and mealtimes (this was especially problematic for women and primary caregivers who all preferred shorter working weekdays and weeks in their ideal work schedules);
- Extended daily hours for trades workers would mean even higher daily hours for supervisors because of their extra supervisory and reporting responsibilities and the need to set up the site for the next day's trade work;
- Longer working days during the week could spoil the weekends by creating extra exhaustion during the week and shifting weekly essential tasks like banking, shopping and washing clothes to the weekend.

GROUP 3 - On-project wage earners in operative roles:

This group was the least supportive of a hard 5-day week which is not surprising given that their pay is linked to hours and days worked and the potential to earn overtime on weekends (Figure 28 APPENDIX D, Tables 23, 25 APPENDIX E).

However, as in Groups 1 and 2 there was some support for a hard 5-day week, although this was dependent on a number of factors:

Attitudes towards working extended weekdays

Many tradespeople are not able or willing to work longer hours during a compressed 5-day week to compensate for the loss of Saturday working. Many tradespeople were already working very long hours of work, and there was no capacity to increase these further during the week (in a compressed 5-day week model) without significant impacts on WLB and safety. This was especially the case for heavy trades or those that require high levels of concentration where both physical and mental fatigue are a greater risk. This raised questions about fairness and inequity for some associated with moving to a 5-day week. This problem was also noted by supervisors working on hard 5-day week projects, which were suffering labour shortages because many tradespeople were not taking the option of working longer weekdays to compensate for the weekend's loss.

Attitudes towards earning overtime pay on weekends

While some in this group were willing to take a pay cut for a 5-day week in terms of potentially reduced opportunities for overtime work, this willingness depended on personal circumstances, responsibilities and preferences towards work and non-work activities. For example, overtime was generally more important to younger workers, those with mortgages and family responsibilities, workers whose working life is limited by the physical nature of their jobs and those who are personally materialistic in nature.

Attitudes towards working weekends

Some trades (internal fit-out, plaster boarders, carpenters, ceiling installers, tilers etc.) like to work weekends because they are more productive due to better crane access and less interference from other trades.

Ability and willingness to work more productively during the week

While some in this group were willing to work more productively to accommodate a 5-day week, this was problematic for many. For example, some trades (especially physically demanding) find increasing productivity more difficult than others. Some trades' productivity was also more dependent on other trades and hard to measure. Furthermore, since pay is not linked to productivity for many in this group, increasing productivity during the week could eliminate their opportunities for earning weekend overtime.

Type of project

Working longer hours during the week to compensate for the loss of overtime on weekends was not an option for every project. Those on projects where this was difficult tended to oppose a 5-day week. For example, on jobs where Saturday working hours were restricted

by DA conditions to 1pm, extending hours during the week by 1-2 hours a day could easily compensate for the loss of 5-hour wages on Saturday. It could, in fact, increase the capacity to earn overtime (although some DA restrictions on noisy activities may prevent this for some trades). However, on projects where DA conditions allow a 10-hour Saturday, a compressed hard 5-day week represents a potential loss of wages since it is not possible to add 10 hours onto the weekdays to compensate for the loss of Saturday overtime working.

Cultural factors

Given the cultural diversity of the industry, cultural factors were often identified as factors which would determine attitudes towards a 5-day week. For example, some practising Muslims might choose Friday rather than Saturday as a rest day. Indigenous workers may need flexibility to attend to community and cultural commitments, which may require time off during the week rather than the weekends. Asian workers associated with specific finishing trades like plaster-boarding and tiling were frequently identified as a group that preferred to work long hours and weekends to maximise access to overtime.

Commuting

Many tradespeople prefer to go home early during the week and work weekends if necessary to avoid weekly rush hour traffic and longer daily commutes so they can see their families. Many tradespeople travel to and from work for over an hour, meaning they would not get home until 7pm if they worked an extra 2 hours to 5.30 pm. They would then have to be up at 5am the next morning. For these people, a hard 5-day week simply moves recovery time normally available during a 6-day week to the weekend with little, if any, net gain.

Theme 7: There are numerous ethical questions about imposing a 5-day week on the whole industry when not everyone has a voice in the debate.

Many respondents felt that the current 5-day week debate was biased and that they had little voice in the debate. The main concerns were:

 The 5-day week debate was being driven by a relatively small, unrepresentative group of salaried off-project professionals working for large contractors who tended to work on large government infrastructure projects:

There was a widespread perception that the people arguing for a hard 5-day week had the most to gain because their salaries were not linked to weekend working. Many respondents felt that the voices of people who could be disadvantaged by moving to a hard 5-day week were not adequately represented. These people include waged earners who could lose opportunities for weekend overtime pay; young single tradespeople and certain trades who prefer working overtime and weekends; people from different cultural backgrounds who value flexibility during the week; and those working for private clients, developers, smaller contractors and subcontractors who could be financially disadvantaged by a hard 5-day week. The many small-to-medium sized firms that dominate the construction industry do not have the same power as larger contractors to influence their clients to share the risks of moving to a 5-day week (by adjusting budgets and programs). They also had less expertise, resources and flexibility to adapt their working practices to accommodate a 5-day week. Therefore, if a 5-day week was imposed across the whole industry, many felt that smaller firms working for mainly private clients would be most adversely affected (even though their smaller projects could probably accommodate a 5-day week easier than a larger, more complex project). Many felt that given that the industry was dominated by small firms, this could have significant detrimental effects that were not adequately discussed.

• The current 5-day debate distracted attention from many other equally important if not greater threats to WLB across unrepresented parts of the industry:

Many felt that other equally important threats to WLB were not being discussed. These include more realistic project programs and budgets, lack of equal access to flexibility, skills and labour shortages, improving workplace cultures which are destructive to WLB, poor project working conditions such as poor safety and poor site facilities, general worker exploitation and insecure work. Many felt that some of these threats to WLB could be

exacerbated by mandating a hard 5-day week. For example, a compressed hard 5-day week could reduce flexibility for many workers and encourage construction workers to find work in the alternative unregulated grey construction economy if they were universally prevented from working on Saturdays (survey data indicated that this would affect 20-30% of the construction workforce – Table 26, APPENDIX E). This could lead to further safety concerns for such workers. Subcontractors also argued that a hard 5-day week could result in a loss of labour from 5-day to 6-day projects (or even the industry as a whole) and increased industry fragmentation and casualisation as people seek self-employment to regain control over their lives.

• The timing of the current 5-day week debate was skewing arguments in favour of a hard 5-day week:

Numerous respondents cautioned that the current 5-day week debate was occurring at a time of relatively full employment, labour shortages and plentiful work. While salaried workers would generally always support a hard 5-day week because their wages would remain the same for less time in work, many argued that waged earners' attitudes towards a 5-day week (and the possibility of reduced overtime) would become less positive if work began to dry-up due to growing cost-of-living pressures coupled with rising unemployment and under-employment in the industry. Ironically, a hard 5-day week could also indirectly affect the WLB of salaried workers in the long term, by undermining the economic viability of the projects and businesses on which their employment ultimately depends.

• The positive aspects of work were not being adequately considered in the current 5-day week debate:

Many people highlighted that different people had different attitudes towards work, influencing the impact of long work hours and weeks on their WLB. Many people attached considerable importance to work, and numerous references were made to the need to balance the high levels of pay in the industry and the comradery, teamwork and sense of accomplishment of working on projects, which can be intensified by working together for long hours and under high pressure and intensity. The positive aspects of work are also likely to become stronger when the construction market turns downwards, and employment becomes more scarce.

Those who are lobbying for change have the most to gain:

Many people argued that it was unfair for one unrepresentative group, who would benefit most from a hard 5-day week, to lobby the government and clients to impose it 'top-down' on everyone across the industry, including those who may be disadvantaged by such a model. There was consensus that no one group had the right to impose their version of WLB on the whole industry and that everyone should be given a choice as to whether they want to work 5 days or 6 days.

There is a cancel culture when it comes to debates about a 5-day week;

Several respondents talked about a 'cancel culture', which was stifling open debate about the pros and cons of a 5-day week. Several respondents expressed concerns about fear of public shaming and ostracism in speaking out against an increasingly dominant industry narrative that was being linked to emotive issues such as gender diversity, suicide and mental health and wellbeing. While all respondents wanted to see improved health and well-being, reduced suicide, and greater gender diversity and equity in the industry, many (including female respondents) were not convinced that a 5-day week would address these problems and had not seen evidence to prove it. Many thought that a 5-day week could make it worse for some people. Those who were perceived to be most disadvantaged by a 5-day week (especially a hard 5-day week) included those who:

- Value working most greatly (have a high work salience);
- Depend on the extra income they earn on the weekends (especially young people and those suffering cost of living pressures);
- Have long commute times to and from work;
- Need daily recovery time during the week to avoid fatigue;
- Prefer working weekends for a variety of reasons (personal, social, economic, cultural

etc);

- Need to be available for critical family activities during the week (such as child pick-up and drop-off).
- Clients and employers are not being made accountable:

Many also asked why clients were not being made more accountable for WLB in their supply chains (from a corporate social responsibility perspective). Others argued that contractors also needed to be more accountable for the WLB of their workforce and supply chains.

Theme 8: There is significant pressure to adopt a 5-day week across the industry based on a lack of reliable evidence about its risks and benefits.

Many respondents were aware of accumulating momentum within the industry to adopt a 5-day week. This was put down to a variety of factors, such as:

- Most other industries work a 5-day week and some are experimenting with a 4-day week.
- The need to diversify the industry and especially recruit and retain more women;
- An increasing number of firms were already employing a soft 5-day week for both on-project and off-project workers;
- EBAs were normalising a shorter working week for construction workers (although most were reluctant to give up their Saturday overtime wages);
- Increasing labour costs on Saturdays coupled with reducing productivity on Saturdays were gradually eroding the economic viability of working Saturdays for many firms (subject to a wide range of factors as discussed above);
- Changing workforce demographics (such as an ageing workforce) were forcing the industry to listen to younger workers who are demanding better WLB and workplace flexibility;
- COVID has fundamentally changed attitudes towards working from home and employee expectations about flexible working. Businesses that insist on an inflexible 6-day week are no longer likely to be seen as an employer-of-choice;
- A 5-day week is being promoted as one solution to the unacceptably high rates of poor mental and physical health and well-being (including suicide rates) and poor gender equity and diversity in the industry.
- As more projects and firms successfully work a 5-day week, it is likely to become more accepted across the industry.

However, several participants also raised concerns about a lack of reliable evidence to support many claims about the benefits of a 5-day week. For example, there were especially divided opinions on whether a mandated hard 5-day week would increase female recruitment, retention and progression in the construction industry. While the avoidance of Saturday working could help ease certain pressures on women, such as childcare challenges on weekends, a compressed 5-day model of longer hours during the week was seen to be problematic for many women who tend to take the main burden of childcare responsibilities. Most women interviewed and surveyed commented that their ideal work schedule would be a shorter working day (8/9am – 3/4pm) – ideally for 4 days a week or to work from home one day a week at least. Many respondents also noted that most women in the industry currently work in off-project roles and work 5 days a week anyway. While this was recognised as not ideal and a reflection of gender inequalities in the industry, respondents noted that moving to a 5-day week would make little difference to them in their current roles. However, it was also acknowledged that the avoidance of Saturday working may enable more women to work in project-based roles, which are especially underrepresented by women. However, this potential benefit is likely overridden by the difficulties of working extended days during the week in a compressed hard 5-day week model (which was felt to be the inevitable model employed in the industry if clients would not adjust their programs and budgets to suit). Some also commented that a hard 5-day week might disadvantage female trades due to potentially fewer opportunities for overtime working (although, as discussed above, this varies from project to project and trade-to-trade and person-to-person). Most respondents also noted the industry was very well paid compared to other industries and that for many people (including women), this was the main attraction to working in the industry and compensated for the long hours worked. Most notably, most considered the delineation between men and women irrelevant, unhelpful and based on outdated assumptions about women's role in society. Most argued (including women respondents) that rather than making construction more appealing for women, the industry needs to be more appealing for families (men and women alike). Many noted that the traditional female role of being the main carer is changing, and many women live in relationships where men are equal or even primary carers. Finally, improving WLB for men also improves WLB for women because of their interdependence in work and because it can change the culture of presenteeism in construction, which is currently set generally by men. In summary, for most respondents, the jury was still out on whether a 5-day week (and a hard 5-day week in particular) was beneficial for people's WLB. As discussed in Theme 9, there is significant scepticism around the reliability of evidence surrounding the pros and cons for individuals, businesses and clients working a 5-day week.

Theme 9: There is not enough recognition that individual and organisational interests are mutually dependent in the current 5-day week debate.

As discussed above, many respondents argued that the current 5-day week debate does not adequately consider the mutual dependency between individual and organisational interests. Respondents agreed there were both advantages and disadvantages for businesses in moving to a 5-day week and that these would inevitably impact individual employees' WLB in the longer-term in both positive and negative ways. However, many felt that the potential upsides of a 5-day week had been given more attention than the potential downsides.

The main business benefits of a 5-day week were seen to be improved recruitment, engagement and retention, linked to shifts in generational expectations about WLB, coupled with broader changes in workforce expectations which had accelerated since COVID.

However, respondents warned that a hard 5-day week could have significant costs for businesses if clients did not adjust their budgets and programs to suit (See Themes 17 and 18). In the long term, these business costs would be detrimental to individual's WLB and could spill over into families and communities, too. Respondents also warned that these negative impacts could potentially increase in the future if the economy contracts and reduces even further the capacity of the industry to carry these potential costs.

Potential business concerns linked to a hard 5-day week included:

- Increased construction costs, reduced margins and longer programs (see Themes 17, 18, 19 and 20) resulting in potential bankruptcies and loss of jobs and the shelving of marginal projects due to reduced financial viability;
- Reductions in competitiveness and loss of work for firms tendering hard 5-day projects against firms tendering 6-day week projects (if clients do not level the playing field);
- Potential labour shortages on hard 5-day projects as construction workers move to work on 6-day week projects due to potential loss of overtime earnings and damaged WLB;
- Potential reductions in the construction labour force as workers leave the industry altogether to earn better wages elsewhere;
- Increased public transport and traffic congestion and carbon emissions as thousands of construction workers flood onto roads and trains during peak traffic periods due to longer working days during the week;
- Reduced building supply to residential and other markets due to shelved projects and increased building prices;
- Increased building prices for the community due to increased costs which most agreed would be passed onto building clients;
- Increased building prices due to reduced market competition as contractors and subcontractors avoid tendering for riskier 5-day projects;

Theme 10: There is a lack of evidence to guide reliable decision-making

Many respondents were aware of recent projects which had trialled a hard 5-day week. They acknowledged that this had been valuable in starting a debate about WLB in the industry. However, many also had concerns that advocates of a hard 5-day week were basing their arguments on a very small number of un-representative projects (large contractors building major infrastructure projects with considerate, sympathetic and progressive clients), which did not reflect the realities of working in the industry where the majority of firms were small-to-medium-sized firms working for the less progressive government and private clients. There were also widespread concerns that the reported facts did not always accurately reflect the realities of what happened on those projects. For example, many respondents (including some who have

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worked on these projects) commented that they reverted to a 6 or 7 days per week when behind schedule and that the results would be skewed because the projects were staffed by people who were sympathetic to a 5-day week. Overall, the above issues raised significant concerns for many respondents that clients adopting a 5-day week policy were basing their decisions on unreliable evidence. There was consensus that there was a lack of reliable evidence about the impacts of a 5-day week (especially a hard 5-day week) and that arguments for and against a 5-day week must be better fleshed out before any decisions were made about its wider adoption.

Theme 11: There is a need for greater client transparency, consistency and clarity from clients about what a 5-day means, how it is assessed and whether they are prepared to adjust their programs and budgets to accommodate it.

Many respondents in Groups 1 and 2 complained about a lack of transparency, consistency and clarity from government clients (both between and within agencies or departments) when requesting and assessing tenders for a 5-day week. Respondents noted that while some government clients were prepared to acknowledge differences in program and price between a 5-day and 6-day week, others were not. Since many respondents thought there were significant time and cost differences (see Theme 17), this was a concern.

Notably, numerous respondents commented that if there were any cost or program differences, the 5-day tender was rarely taken up by clients (including government clients). In other words, most clients wanted a 5-day week project for a 6-day price and program and expected the industry to bear the costs at a time when there were already significant cost pressures.

Several respondents argued that the common practice of clients asking for two competing 5-day and 6-day bids was especially problematic because it sent conflicting messages to the market and created confusion, anxiety, and market uncertainty by creating an unlevel playing field for those tendering on such projects. They warned that this could tempt ignorant, unscrupulous, or desperate contractors to 'buy' 5-day projects for 6-day prices and programs to maintain turnover. Many respondents argued that contractors could easily manipulate the relative costs and time of 5-day and 6-day programs on paper to make a 5-day program equal a normal 6-day price to win a job. However, many noted that the reality of implementing that on-site was very different and was often left to the site team to figure out. It was predicted that the likely results would be budgets and programs running over, potentially causing contractors to take shortcuts or pursue claims to recoup losses. This would not be good for the industry or its clients.

To avoid this scenario, many noted that many hard 5-day projects regularly work 6 and even 7 days a week, impose 6-day week contracts on their subcontractors in case they need them to work a 6-day week, use mandatory activities like safety training as an umbrella to insist people work on Saturday. The implementation, monitoring, and enforcement of a 5-day week by clients is variable, and there is a widespread perception that the 5-day project is a myth rather than a reality for many projects.

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Theme 12: For a hard 5-day week to be viable, it is important to mandate it for everyone and plan it from the start of a project so that a project can be assessed, designed, planned, budgeted procured and constructed on this basis.

While many respondents' firms were already working a soft 5-day week and had made it viable, there was widespread agreement that introducing a hard 5-day week retrospectively at the tender stage was highly problematic. Most noted that the whole industry business model and its traditional systems, processes, and procedures are predicated on a 6-day week. This means that most projects are assessed, planned, designed and constructed on the basis that weekends are available for work if required.

While the value of Saturday working varies from project to project, most respondents agreed that to be economically viable, a hard 5-day week had to be designed into the project from the very start. This would require every industry stakeholder to think differently about how they assess, plan, design and construct it to work on a 5-day business model. Most importantly, it was considered crucial for clients to adjust their budgets and programs to accommodate the potential costs of working a hard 5-day week on their projects, to mandate a hard 5-day week for everyone to create a level playing field for contractors to tender. It was widely agreed that no contractor is going to be willing to tender on a hard 5-day program if their competitors are

tendering on a 6-day program.

Two respondents argued that clients did not need to change their budgets and programs, that a hard 5-day week could force the industry to innovate and that it was possible through innovation and smarter project planning to compress 6 days into 5 days. They argued that the industry had become unproductive, psychologically dependent on a 6-day week, and culturally resistant to innovation and change. However, most respondents cautioned that contractors were already struggling to deliver projects on time and within budget for 6-day programs. Furthermore, the vast majority of respondents agreed that no amount of innovation could compensate for the loss of Saturdays if the decision to impose a hard 5-day week was retrospectively made at the tender stage after a project had been assessed, planned and designed based on a standard 6-day working week.

There was widespread consensus that for a hard 5-day week to be viable, innovation needed to occur over the entire project life-cycle and involve every party in the procurement process. This required collaboration and innovation from everyone in the construction procurement chain, including how clients distribute risks for requiring a 5-day week. In other words, there must be collective responsibility across the whole industry if a hard 5-day week is to be achieved – clients, consultants, designers, planners, contractors, manufacturers and suppliers, subcontractors and unions.

Theme 13: A variety of alternative 5-day week models are emerging across the industry, ranging from soft-hybrid-hard approaches.

While many companies still worked a traditional 6-day week, an increasing number of firms are experimenting with a range of alternative 5-day week models. These models have different WLB implications for different industry groups and different implications for business and our results suggest that more models are likely to emerge over time. Current common 5-day week models include:

- The most common model was a soft 5-day week which involves working a rotating schedule while keeping sites open for 6 days on weekends (for example by giving people alternate Saturdays and weekdays off). This model included two sub-models:
 - Compressed soft 5-day week
 — where people work 1-2 hours longer every day to make
 up for the lost weekend;
 - Pure soft 5-day week (100:83:100) where people have to increase their productivity to keep their wages and hours the same during the week (produce 100% of the work for 83% of the time and 100% pay);
- A hybrid soft 5/6-day week where people have the option of working 6 days if they prefer (for example, tradespeople may prefer weekends rather than extended hours during the week). In this model, some people work 5 days, and others work 6 days alongside each other.
- A hard 5-day week where sites are closed on weekends apart from limited and exceptional activities where the public or other workers may be at risk. This included two sub-models:
 - Compressed hard 5-day week
 — where people work 1-2 hours longer every day to make
 up for the lost weekend;
 - Pure hard 5-day week (100:83:100) where people have to increase their productivity to keep their wages and hours the same during the week (produce 100% of the work for 83% of the time and 100% pay);
- Hybrid soft and hard 5-day week models where different trades work soft and hard 5-day
 weeks at different times during a project depending on project progress, their criticality to
 the program and their ability to safely and productively work longer working hours during the
 week;
- Alternative shift-based models such as using temporary/replacement workers and/or extra additional shift workers during the week to allow people to work normal hours during the week:
- Conditional 5-day weeks where people normally work a 5-day week but there is always
 the provision for them to be required to work a 6-day week in certain circumstances (for
 example, if the project falls behind);
- Combined alternate 6-day and 4-day weeks and other combinations that average out to 5 days per week over defined periods.

It was widely felt that different models suited different projects and firms depending on a wide range of factors. It was also felt that unilaterally imposing a hard 5-day week on the industry did not respect or understand the industry's variability and would produce negative results in many projects where this model was not suited. For example, a soft 5-day week is best suited to projects where Saturday working is valuable (for example, where clients will not adjust their programs and budgets, where DA conditions allow long Saturday working, when there are enough people who want to work Saturdays make it productive and where project logistics and complexities made Saturdays important more material deliveries, float and doing work which cannot be done during the week). In contrast, imposing a hard 5-day week in these circumstances would be highly risky. Furthermore, most respondents agreed that it was very hard to maintain a hard 5-day week in practice over the life of a project due to inevitable project uncertainties, which could cause delays and make weekend working valuable to catch up. These pressures often grow towards the end of a project due to accumulated delays and reduced project float. During winter, reduced daylight hours can also force people to work weekends by making longer weekly days impractical. Furthermore, during periods with a preponderance of heavy trades or congested working on site, weekend working is often safer since interference between trades can cause accidents and working continually longer hours during the week can cause increased fatigue. Interestingly, climate change (and the associated increased risk of force majeure experienced by the industry over the last few years) was seen by several respondents as a significant risk to the viability of a hard 5-day week going forward. Therefore, it was widely agreed that any 5-day model needed to be flexible and responsive to inevitable changes in circumstances over the life-cycle of a project.

Theme 14: A soft 5-day week is increasingly common across the industry and is widely accepted as a viable compromise between business and individual worker interests.

Faced with the likelihood of incurring the many risks associated with a hard 5-day week, several respondents had been voluntarily operating a soft 5-day week for some time for both off-project and on-project staff with minimal impact on project programs, costs and business competitiveness. Soft 5-day weeks were typically accommodated using standard workplace flexibility arrangements and rotating schedules to give people an alternative Saturday and weekday free while keeping the site open on Saturdays.

While many respondents preferred (at a personal level) a hard 5-day week with weekends off, given that clients were considered unlikely to adjust their programs and budgets to accommodate the extra time and costs involved (Themes 17 and 18), the soft 5-day week model was considered the best compromise between individual and business interests. This model provided employees with the flexibility to accommodate their varying work and life demands and keep projects open 6 days a week. Although there were organisational challenges that had to be managed with a soft 5-day week (such as ensuring continuity of site management/ supervision between weekdays and weekends), most respondents felt that the industry could absorb costs and that this model was a good compromise between the mutually dependent interests of their employees, clients, and businesses. This model was widely considered less risky than the hard 5-day week, which involved significant potential costs, although this varies from project to project and depends on a range of variables (see Themes 17, 18, 19 and 20). It was, therefore, more suitable when clients were not prepared to change their project budget and program requirements.

The implementation of the soft 5-day week in numerous firms was typically in response to the following:

- Corporate social responsibility decisions on the part of some firms to provide their employees with a WLB for both moral and business reasons;
- Changing employee expectations about WLB and a reduced willingness to work a standard 6-day week;
- Regional and sector variations in standard working weeks;
- The need to attract, engage and retain employees in an increasingly competitive employment
 market:
- Increasing government client tender requirements to submit a 5-day week price and program alongside a standard 6-day price and program;
- Increasingly expensive and unproductive Saturday working. Many respondents talked about

• The need to be flexible in accommodating different worker preferences and abilities to work a 5-day or 6-day week.

Several respondents had undertaken their own research into the pros and cons of a soft 5-day week and were confident of its benefits. However, common challenges included:

- Ensuring project continuity when a key person is away on a weekday;
- Ensuring that people do not work on other sites on scheduled days off;
- Ensuring that trades do extra hours during their 5-day week to make up for the lost 6th day (experience indicates that not every trade person wants to do this, which can lead to labour shortages);
- Avoiding the risk that a project falls back into a 6-day week when program pressures start
 to emerge. Respondents noted that there was always the option of asking people to work
 weekends. Most clients (including the government) were typically very open to requests to
 open sites on Saturdays to prevent delays. Many said that while projects started as a 5-day
 week, they often became a 6-day and even 7-day week when things went wrong (however,
 this was also reported as a problem by those who had worked on hard 5-day week projects);
- Clients (especially private clients) were not generally interested in the WLB benefits a 5-day week produced and were not prepared to pay for any extra costs or time incurred. Respondents agreed that most clients (including the government) were agnostic about 5-day week proposals and negative if they took more time and money.

Theme 15: A flexible project-based approach to negotiating flexibility with individuals at a project level is widely considered to be the best approach.

Assuming that many clients will not be willing or able to adjust their project budget and program expectations and considering the many factors that determine the viability of a hard 5-day week, most respondents argued that the optimum 5-day week approach was a soft and flexible model, negotiated and agreed within individual project teams, which responded to the unique needs, circumstances and constraints of each construction project. Such an approach would provide project teams with the flexibility to negotiate their own WLB with other project team members without incurring the stigma of letting their team down and potentially compromising project outcomes. This approach would also ensure that the risks and benefits of a 5-day week could be shared and balanced between a company, its client and a project's workforce.

Theme 16: A 4-day week model is not considered to be viable at the present time

Several respondents were aware of wider debates about a 4-day (100:80:100) working week. This model involves people increasing their productivity by 20% to work 4 (rather than 5) days a week to keep their wages and daily working hours the same. In the context of the current 6-day week in the construction industry, this would translate to a 16.7% increase in productivity and was considered unviable.

While no respondents thought that a 4-day week was viable, one respondent in Group 1 thought that such a (100:80:100) model could be adapted to a 5-day week (100:83:100) by requiring and supporting (through innovation) people to work 16.7% more productively to keep their wages and working hours the same. However, all other respondents agreed that such a model approach would be highly problematic for the following reasons:

- The likelihood of achieving a 16.7% increase in productivity (to do 6 days work in 5 normal days) was very low;
- The industry would have to pay workers based on their productivity rather than an hourly rate. Yet it is notoriously difficult to measure labour productivity in the construction industry because of methodological challenges, a lack of data and the close interdependency and intermingling of trades on site.
- The payment of salaried workers would also have to be linked to productivity, and this would be complex given the intangible service-based nature of their roles and the challenges of separating and then measuring their contribution to productivity on site;
- There could be significant safety, quality and productivity implications for increasing work

- Many tradespeople would be likely to work weekends on other unregulated sites to maximise their overtime, leading to even greater safety risks and poorer WLB;
- Low margins and already tight programs mean that contractors and subcontractors do not have the capacity to accept the risk of increased productivity;
- The likelihood that productivity increases would be short-lived and return to normal levels over time;
- There are numerous psychological, contractual, organisational and structural barriers to potential innovations in the industry, which can enhance productivity by 16.7%;

Theme 17: There are some serious reservations about a hard 5-day week from both an individual WLB and business perspective.

As discussed in earlier themes, from a personal perspective, many respondents would happily move to a hard 5-day week because it forces the industry to shut down on weekends and provides people with recovery time and time to spend with their families, etc. Similarly, from a business perspective, many respondents acknowledged that productivity and attendance on Saturdays had reduced over the last 20 years and that this had increased the viability of a hard 5-day week. One respondent's detailed calculation showed a reduction in attendance from 60% to 50% since 2005 across 26 trades – with some trades, such as formwork, as high as 74%.

However, most respondents thought that the industry would only realistically move to a hard 5-day week if clients were prepared to take or share the risks by:

- · Changing their budget and program expectations to suit;
- Being consistent and creating a level playing field by not permitting firms to submit competing 5-day and 6-day tenders on the same project;
- Removing incentives for firms to revert back to a 6-day week, such as excessive liquidated damages and contractual risk distributions, which shift the risk of uncontrollable delays onto the industry;
- Being more transparent in how they define a 5-day week, assessing its merits against a 6-day week and monitoring and enforcing it in practice.

Many also had serious reservations about the viability of a hard 5-day week for the following reasons:

- Most assumed that most clients were unconcerned with the WLB of people working in their
 construction supply chains, were generally unwilling to take any risk and would expect
 the industry to absorb these costs. While some government departments were seen to be
 more willing to share risk, this varied significantly both within and between departments and
 agencies. There was consensus that private clients, in particular, would not be receptive to a
 hard 5-day week because the viability of their projects was closely tied to program duration.
 This means that the industry would be forced to accept the costs of a hard 5-day week (see
 Theme 18) at a time when margins were already very low for many firms;
- Many construction workers (38.5% Figure 28, APPENDIX D) do not support a hard 5-day week and prefer to work Saturdays rather than longer weekly days (especially those in heavy, physically demanding trades or exposed to the elements). The main concerns revolved around a loss of weekend overtime pay (especially younger construction workers and those who are not able physically or personally to work longer weekdays). Furthermore, from a business perspective, there were concerns that if the whole industry moved to a hard 5-day model, it could lead to a loss of labour (already in severe shortage) to other industries, a migration of labour from 5-day week projects to 6-day week projects (causing a competitive disadvantage for firms operating a hard 5-day week) or people seeking Saturday work in the unregulated grey economy;
- Many respondents still considered Saturdays a highly valuable day (the most productive day
 according to subcontractors), which was difficult to replace by working longer hours during
 the week. Although many respondents agreed that the value of Saturdays had reduced
 considerably in recent years (due to increasing overtime costs, reduced weekend attendance
 and productivity), this varied between different types of projects (CBD, urban and regional),
 and Saturdays were widely considered to still play a number of valuable functions (especially
 on inner city CBD projects with large workforces and significant logistical challenges and
 where DA conditions enabled it). These valuable functions of Saturday working included:

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- A catch-up day (float) if the project fell behind during the week (as it almost inevitably does);
- A clean-up day;
- Preparing for the next week to ensure it could start productively;
- Undertaking unavoidable weekend activities which could be a public risk or risk to other trades during the week, such as major concrete pours, road closures, service interruptions, pre-tensioning and striking formwork, noisy work, crane dismantling or erection, etc.;
- Access to crane time, which was not easily available during the week;
- Working without interference from other trades.
- Negative implications for salaried staff by extending already very long days during the week (10-12 hours being common). Many felt that administrative work formally done in the week would be shifted to the weekend to be done in people's own time, even if the site was shut down:
- Many people would work weekends anyway, even if sites were shut down. Either by taking
 a second job, working on other 6-day sites (as a construction worker) or on their computers
 at home (as a manager);
- Difficulties and costs of rostering and increased supervision to keep sites productive for longer daily working hours;
- Logistical, communication and handover challenges in organising cover workers and double shifts to cover the extra hours at the end of the day;
- Increased costs due to reduced marginal productivity at the end of the longer weekdays compared to Saturday working;
- Increased labour costs due to additional replacement workers, increased supervision, rest periods, meal breaks etc;
- Increased material costs due to costs of extending hours for material suppliers and other sub-subcontractors;
- Reduced market competition for clients as some contractors and subcontractors avoid 5-day week projects in preference for 6-day week projects;
- Working continuously longer weekly days to compensate for the lost Saturday was considered worse for WLB than working weekends for many people due to:
 - Potential loss of wages for construction workers;
 - Missing out on key family activities and responsibilities during the week;
 - Increased inconvenience and travel time in rush hours (especially for those who commute long distances to work);
 - Lack of recovery time during the week;
 - Increased fatigue and associated safety risks and the temptation to work weekends on 6-day jobs or the unregulated informal/grey economy to earn lost overtime;
 - Reduced productivity from adding Saturday hours onto the end of each working day during the week (especially for heavy labour-intensive trades where fatigue is a risk such as bricklaying, concreting, steelworking etc.).

In summary, most respondents agreed that a hard 5-day week could only be made to work on selective projects where:

- Clients were willing to share risks and opportunities by adjusting budgets and programs;
- Clients are transparent about what they mean by a 5-day week, how they asses it (against potential 6-day bids if permitted) and if they monitor and enforce it in practice;
- Projects were engineered up-front to fit a 5-day week program (in terms of feasibility, design, technology, planning, risk allocation and workforce selection);
- Saturdays were more costly, less valuable and less productive (such as on more simple greenfield/suburban projects with DA restrictions for Saturday working);
- Time and cost constraints were not critical;
- Risks for project delays and liquidated damages were low;
- Costs could be amortised by participating firms onto parallel 6-day projects;
- The majority of workers did not suffer a loss of wages;
- There are not a lot of heavy trades which are susceptible to fatigue by working longer weekdays;
- Extra workers are available if necessary during the week to cover different shifts on longer days;
- A range of other interventions were also involved to avoid risks to WLB, safety, productivity and quality (such as fatigue management, discouraging people from taking second jobs on

weekends, carers support, improved quality and safety management systems, etc.).

However, most respondents agreed that these conditions were very unlikely to be achieved on most projects. This meant that a hard 5-day week would produce significant challenges and unintended consequences for most of the industry.

Theme 18: There are potentially significant time and cost implications in moving to a hard 5-day week, although estimates vary significantly and depend on numerous assumptions.

Given that many respondents were already working a soft 5-day week, the cost and time implications of this model were widely known, factored into project timelines and budgets, and absorbed by many in the industry.

In contrast, as discussed above, there was considerable uncertainty about the potential cost and time implications of working a hard 5-day week, and there was general agreement that more projects needed to be completed and independent data collected before this became clear.

Nevertheless, within these agreed limitations, many respondents provided us with detailed figures about the potential cost and time implications of a hard 5-day week across numerous projects (both finished and tendered). Some drew on their own experience of tendering and working on such jobs. Some voluntarily produced comparative 5 and 6-day prices and programs for projects they were tending on. Others developed hypothetical costings and programs for typical projects that had been finished or were in planning.

Notably, the considerations and methodologies for estimating costs and time varied considerably, reflecting the nascent nature of the 5-day week debate. It was, therefore, not surprising that there was a high level of variability and uncertainty as to the implications of moving to a hard 5-day week, with estimates varying between +5% and +25% for time (with an average of +14.55%) and 0.4% to 4% for cost (with an average of 1.88%). This typically varied depending on the productivity value of Saturday working. For example, those involved in large, complex, constrained, urban building and infrastructure projects with DAs which allow long Saturday hours typically argued that moving to a hard 5-day week would likely have significant cost and time implications for the industry. Most argued that these costs would have to be passed onto clients and could, therefore, undermine the feasibility of many marginal projects. This would, in turn, impact the industry, the WLB of the people working in it (by affecting their job security), the wider community and national economic prosperity, and government revenues. Respondents were also concerned that a hard 5-day week could significantly increase their exposure to liquidated damages (LD) risks, assuming that most client would not adapt their programs. Subcontractors (especially those involved towards the end of a project) felt particularly exposed to this risk. While some acknowledged there would be a saving in overtime costs of about 2 hours a week in moving to a hard 5-day week, increases in preliminary costs (due to longer programs) generally exceeded any savings, and the increased risk of LDs was also a concern.

In contrast, those involved with smaller, sub-urban, simple projects in greenfield sites with DAs which restrict Saturday working (probably the majority of projects in NSW) were less pessimistic about the cost and time implications of a hard 5-day week. Many thought the costs and time implications would be negligible, and two respondents thought there would be 'overall' cost savings (around 2%). However, again, this was based on the assumption that they met their program and that clients were prepared to adjust their programs to avoid a compressed working week (widely considered a cost risk).

Estimating the time and cost implications of moving to a hard 5-day week was considered a complex exercise and in making their estimates, respondents described making a number of important assumptions and allowances for:

 The relative value of Saturday working, which varied considerably from project to project depending on a range of factors such as restrictions imposed by DA conditions and/or clients on Saturday working (more allowable hours made Saturday working more valuable); project location, size and complexity (Saturdays are more valuable on larger, complex jobs in urban areas and infrastructure projects which require road closures etc.); nature of trades on projects (some are more productive on Saturdays than extended hours during the week).

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- Client willingness to adjust their programs and budgets to accommodate a hard 5-day week;
- The extent to which the project was assessed, planned and designed for a hard 5-day week;
- Market conditions and likely competition in tendering on a hard 5-day week;
- Subcontractor attitudes (and price differentials) towards tendering for hard 5-day week projects versus 6-day week projects;
- Project location and the relative value of Saturday working (CBD projects attaching considerably higher value to Saturdays than sub-urban and regional projects);
- Time-related preliminary costs related to extended project programs;
- The relative differences in labour productivity and overtime costs between working Saturdays
 and extended daily hours during the week (Saturdays were generally seen as increasingly
 expensive and unproductive, but longer weekdays were generally seen as relatively less
 productive and to produce minor cost savings, be cost neutral and for some trades incur
 greater costs);
- Relative labour availability/attendance during the weekends and extended weekdays (attendance was generally low on Saturdays but could also slip off during extended weekdays due to fatigue, especially in labour-intensive trades);
- Increased costs and logistical challenges of working extended weekdays associated with shift work, rostering replacement labour to replace fatigued labour, splitting work packages between subcontractors, extra supervision, meal breaks, rest periods, travel to and from the site et:
- Increased subcontractor, sub-subcontractor and supplier costs for operating sites longer during the week;
- Reduced market competition as subcontractors avoid tendering for 5-day week projects;
- The opportunity cost of shifting major activities like post-tensioning and major concrete pours into normal and highly productive weekdays;
- The combined impact of combining RDOs and a 5-day working week on the number of unproductive days;
- The increased risk of LDs (linked to all the factors above);
- The number of days already worked which impacts the challenges of transitioning to a hard 5-day working week.

Despite the above findings, most respondents acknowledged that data was currently not available to enable them to make accurate assessments of cost and time for a hard 5-day week. For example, estimating the relative differences in labour productivity and overtime between working Saturdays and extended daily hours during the week is inherently problematic.

In summary, the list of assumptions contractors are forced to make, and the associated risks involved is a strong argument for clients exercising great care before mandating a hard 5-day week until more rigorous research has been undertaken.

Theme 19: Subcontractors are currently under-pricing the impacts of a hard 5-day week. So, the costs of a 5-day week are likely to increase in the future.

In producing their estimates of costs and time associated with a hard 5-day week, most principal contractors in Group 1 assumed that subcontractors would keep their prices the same. However, interviews with subcontractors indicate that these assumptions are overly optimistic. Subcontractors cautioned that they were not pricing 5 and 6-day jobs differently at the moment because these projects were currently outliers, that they could amortise the costs of a hard 5-day week across other 6-day week projects and that they had not yet worked out in detail what a 5-day week may mean to their business. Our results indicate that the real cost and time implications of a hard 5-day week for subcontractors are likely to be considerably more than what is currently being estimated. Subcontractors agreed that if 5-day projects become more common, it was likely that the costs of their tenders on such projects would increase accordingly – some estimating by as much as 20% (well beyond the worst-case scenario estimated by principal contractors).

While at an individual level, people working for subcontractors preferred a hard 5-day week (Table 23 APPENDIX E), at a business level, a number of subcontractors (especially heavy external trades) were strongly opposed to a hard 5-day week. While subcontractors acknowledged that they could potentially save costs by not paying their workers overtime on weekends, concerns revolved around:

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- Many workers' productivity could fall off rapidly working extended days relative to working Saturday due to fatigue (although this depended on the type of trade, with heavier trades being less productive during longer days);
- Some construction workers would not support it due to the potential loss over time (although this varied from trade to trade and project to project depending on the ability to replace lost weekend overtime with overtime during longer weekly days);
- Some construction workers preferred working weekends over longer hours during the week
 for personal, physical and logistical reasons. They would, therefore, be unlikely to take the
 option of working longer hours during the week and look for Saturday work on other projects;
- To maximise overtime, some would work longer hours during the week and then look for other weekend work (often in the unregulated grey economy). This would exhaust them further and create greater safety risks;
- They would lose labour (who were increasingly self-employed) to other 6-day projects with competitors or other industries altogether, resulting in a loss of labour supply to an already stressed labour market;
- Subcontractors could suffer a loss of capacity to take on projects by extending the time they
 need to deploy workers to 5-day projects (compared to the 6-day projects they currently
 operate);
- There are increased costs for working extended days during the week, such as increased
 material delivery costs after regular hours and logistical and human resource implications of
 working longer weekly days in lieu of Saturday;
- A hard 5-day week was seen as theoretical because, in reality, subcontractors often had very little choice in the hours they worked due to their programs being dictated by contractors who often revert to a 6-day week when projects are threatened by delays. It was widely thought that principal contractors generally showed little concern for subcontractors' WLB;
- Subcontractor programs were already tight and often further compressed if they were working towards the end of a project. Implementing a hard 5-day week would be difficult in practice and introduce major risks of project overruns, cost escalations and liquidated damages (LD) risks, which would have to be borne by subcontractors;
- Subcontractors warned that many principal contractors would promise their clients anything
 to win a project on the assumption that subcontractors would be passed the risk of a 5-day
 week and do anything needed to get the job done on time. Their prices would have to
 increase to accommodate such risks;
- Prices for principal contractors could be higher due to reduced market competition from other subcontractors on such projects (as other subcontractors will likely avoid them in preference for 6-day week projects).

Theme 20: The productivity impacts of a 5-day week vary significantly from project to project and model to model

There was widespread agreement that the industry could adapt to a soft 5-day week and maintain its productivity (because sites were still able to operate over 6 days). However, numerous respondents raised significant concerns about the productivity implications of a hard 5-day week, despite most people agreeing that Saturdays had become less productive and more expensive in recent years. For example, the second most common reason across the sample for working weekends was "Because I can't get my work done" (Figure 14, APPENDIX D). As discussed in Theme 1, this was especially the case for those working in the commercial and house building sectors, for principal contractors, for large businesses and in city areas (Figures 15, 16, 17 and 18, APPENDIX D). However, these concerns varied across our sample and essentially depended on a wide range of factors which determine the relative value of Saturday working.

For example, most people working on smaller and less complex projects where DA conditions restrict Saturday working, thought that productivity could be maintained or even improved by closing sites on weekend projects. Many subcontractors will no longer work Saturdays as they did in the past (such as joiners, electricians, concreters, etc). Therefore, these types of projects generally only get 1-4 hrs productivity from a small number of trades on a Saturday who are generally working less productively than they do during the week and for higher rates of pay. The productivity from these lost Saturday hours can be easily replaced during the week through smarter working or simply working extra hours for a few days. For this reason, many contractors working on these types of projects have stopped factoring in Saturday working when bidding for projects and voluntarily shut sites on weekends to save money – using them for emergencies,

float and catch-up days only. In other words, this part of the industry was being forced to implement a hard 5-day week anyway by higher weekend overtime rates and falling numbers of trades working on weekends.

In contrast, Saturdays are considered far more valuable for large, complex, inner city, commercialtype projects with DA conditions that allow full Saturday working or for infrastructure projects where weekend working, road closures, etc, were an essential part of work. On these projects, it is possible to get 6-8 hours of productivity on a Saturday. It was widely agreed that this is where the hard 5-day week will have its most negative productivity impacts because the lost productivity of not working Saturdays could not be easily recovered by working longer hours during the week. It was notable that many subcontractors working on larger projects also considered Saturdays their most productive day. This was because there was less interference from other trades and easier access to crane time. There was strong agreement that while working 6-days a week was not ideal, adding extra hours onto weekdays on these types of projects would result in lower overall productivity (especially in heavy trades like bricklaying, concreting, steel fixing or those which require high levels of concentration like crane driving). For many trades, there is a limited output capability per day (even with extra breaks), and many argue that these trade workers would simply adjust to longer days by pacing themselves differently to produce the same output over longer hours. In these trades, the only way to compensate for lost Saturday working would be to put more men on site on any one day (increasing labour costs and the risk of inter-trade interference) or to introduce additional shifts during the weekdays (increasing costs and logistical challenges in handing over work). Both strategies were seen as problematic and more costly.

Theme 21: The safety impacts of a 5-day week vary significantly from person to person and model to model

As discussed above, there were varying opinions about whether a 5-day week would benefit people's WLB and, therefore, mental health and well-being. This depended on a wide range of factors such as the model employed (soft, hard, hybrid, etc), personal circumstances, marital status, age, financial situation, culture, etc., including potential impacts on a person's workmates, project and business (which in-turn depended on the nature of the project and wider economic conditions etc).

In terms of physical safety, there was divided opinion about the potential impacts of a 5-day week. For example, some respondents thought that safety would improve by working a hard 5-day week because the weekend off could reduce fatigue and aid recovery time before the next week commenced. Some also thought that safety could improve since the hard 5-day week may encourage innovations which could improve safety, such as offsite fabrication to enable sites to work more productively.

However, the majority of respondents thought that safety would be compromised by a 5-day week because longer daily working hours during the week would create significantly greater cumulative fatigue than working on the weekends. This was a special concern for labour-intensive trades that were exposed to elements such as bricklayers, steelworkers, and concreters, as well as jobs such as crane drivers, which required concentration. These workers are already exposed to high safety risks. Arguments around greater innovation were also not supported since most thought that there was already much incentive to innovate. Safety concerns also revolved around longer and later commute times during the week and the consequences of reduced time with family and recovery time during the week. There was also widespread agreement that construction workers would probably use their weekends to find paid overtime work on other projects or on unregulated grey sector projects, which would be less well-regulated, managed and monitored. This would potentially expose them to higher safety risks and add further to the fatigue of workers who were already working longer extended days during the week.

Finally, there were also concerns about health and safety for professional off-project workers whose mental health and well-being may be compromised by working even longer hours than they already do (typically 10-12) during the week.

Theme 22: The quality impacts of a 5-day week are marginal

As in safety, opinions were divided about the impacts of a 5-day week on quality. Most

respondents were undecided and thought that the impact on quality would be minimal and that their existing quality management systems were adequate to detect and control any increased quality risks. However, a minority thought that quality could potentially suffer from possible labour shortages on 5-day week projects compared to 6-day week projects. Some also noted that quality could potentially suffer from increased fatigue and burnout from working longer hours, greater work intensity and site congestion during the week, which could create potentially problematic interactions between trades on site (damaged work).

Theme 23: The viability of a hard 5-day week has increased in recent years due to the increasing costs and reduced productivity of Saturday working – although this varies from project to project.

Many respondents noted that while there were clear concerns about a hard 5-day week, the economic viability of doing so had increased significantly in recent years. This was due to:

- The increasing costs of paying overtime on weekends;
- Reducing construction worker turnout and productivity on weekends;
- The high costs of opening a site for a small number of workers;
- The increasing culture of construction workers seeing Saturday work as an easy way to make money with relatively little effort.

Many respondents argued that Unions were driving the industry towards a hard 5-day week by making weekend working more expensive (although ironically, many workers are resistant to a 5-day week due to their reliance on weekend wages). Nevertheless, the value of Saturdays and, therefore, the viability of a hard 5-day week varied from project to project, depending on a wide range of factors such as:

- The location of the project (urban and regional projects being easier than CBD projects because traffic congestion, public safety issues and DA restrictions during the week make Saturday work highly valuable and the only viable day that some major activities can be done);
- The complexity of the project (determining the level of importance of Saturdays for major activities such as concrete pours, pre-tensioning and as float to catch up on unexpected delays during the week);
- The value and size of the project in terms of the resources required to build it;
- The time of year that the project is being built or the package being delivered (especially for subcontractors) which determines the feasibility of extending hours during the week due to restricted daylight to compensate for lost Saturdays and potential weather risks;
- Attitudes of clients towards a hard 5-day week. How much they value it and clarity of
 expectations and attitudes towards risk-sharing in terms of the level of accommodations to
 LDs, price and program they are willing to make (government clients were seen as much
 more accommodating than private clients);
- The level of risk of delays from a hard 5-day week (related to factors such as the tightness of the original program, complexity and novelty of the design, whether the project has been designed from the start as a 5-day week project and levels of LDs set, etc.).
- The types of trades involved (for subcontractors) which influenced the relative productivity
 of working Saturdays and the challenges their work posed for working longer weekly days
 (labour-intensive trades such as bricklaying, steel working and concreting posing more
 challenges as do jobs that require concentration and accuracy such crane operating);
- Attitudes of subcontractors to working a hard 5-day week and impact on market competition and subcontractor prices;
- The phase of the project (for subcontractors) which determines relative exposure to already compressed programs and associated increased LD risks of working 5 days;
- DA conditions, which determine the conditions, restrictions and hours of work governing Saturday work and its value to the program;
- The size and capacity of the company to bear any of the costs, time and risks involved in moving to a hard 5-day week;
- Whether companies were already working a 5-day week, which influenced the shift in the business model needed to work a hard 5-day week;
- Whether companies could imagine and implement innovative methods of working to fit 6-days productivity into 5-days;
- Skills shortages which would determine the ability to replace lost construction workers (especially young workers) or increase resources on-site during extended weekly days. A

- hard 5-day week may make it easier to recruit salaried management staff;
- The nature of EBAs signed and the support of unions and construction workers for moving to a hard 5-day week, with potential loss of income for construction workers;
- The state of the economy (labour availability, labour costs, interest rates and the volume of work which would determine the ability of workers and tendered to preference 6-day week projects, etc.);
- Climate change and associated delay risks associated with rain or heat exhaustion, especially for labour-intensive and heavy structural trades;
- The construction industry sector (some parts of the industry, such as residential housing, already work a 5 or even 4.5-day working week).

It is clear that any generalised statements about the reducing viability of weekend working as justification for a hard 5-day week are highly simplistic.

Theme 24: The current economic environment will exacerbate the potential risks of introducing a universal hard 5-day week for many people and firms in the industry and have potentially negative spill-over effects on workers, families, communities, businesses, clients and governments.

Despite widespread support for a hard 5-day week at a personal level, many worried that the timing for moving to a hard 5-day week was wrong for businesses, clients and government.

Reasons included:

- High interest rates magnifying the costs of extended programs;
- Increased costs putting strain on existing margins wage inflation, materials inflation, etc.;
- Labour shortages exacerbated by the potential loss of construction workers from 5-day to 6-day projects or from the sector as a whole;
- Stressed firms still recovering from COVID and material and labour cost increases;
- Low margins inability to absorb extra costs of a hard 5-day working week;
- Large numbers of delayed and over-budget projects (due to increased costs, poor weather, etc) – potentially made worse by the challenges of working without Saturdays;
- Increasing costs of living exacerbated by the potential loss of overtime payments for construction workers. Some trades would be hit harder than others since it is more difficult to increase working hours during the week for labour-intensive trades compared to nonlabour-intensive trades, and some trades are already working very long hours during the week as their norm (finishing trades);
- Climate change creating even more risks of project delays and cost overruns in the future.

A number of respondents also noted that the 5-day week discussion started when labour costs for working Saturdays were lower, interest rates were much lower, the industry was under less strain from staff shortages and materials costs and when proposals for a 9-day week EBA did not exist. Many feared that if a hard 5-day week was implemented now, it would lead to cancelled projects, bankruptcies, and cost increases for building customers. This could undermine the fragile health of one of Australia's largest industries.

Theme 25: How RDOs are treated is widely considered an important question in the viability of a 5-day week.

There is an important industrial relations dimension to the WLB debate. In addition to the labour costs versus productivity issue raised above, many respondents raised the question of how construction worker RDOs should be treated in moving to a hard 5-day week. Many felt that

EBAs already had a range of inbuilt leave accommodations for WLB such as RDOs and travel allowances to cover the inconveniences of working in the industry. Many argued that when added on top of a hard 5-day week, RDOs and other time-related and leave accommodations could effectively reduce workers' time to 4 days a week (3 days a week over long weekends and bank holidays) and would put untenable pressure on already tight programs. Calculations provided by some respondents showed that when averaged over a year, the current RDO and leave entitlements (if all taken) mean that many workers already work a 5-day week or less. In one example, the accumulated leave for one anonymous worker rose to 2000 hours after they had banked it over a long period of time. Many feared that the accumulating costs of paying such high levels of banked leave out across an entire project workforce, combined with an

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imposed hard 5-day week, represented a significant risk and increased financial liability to the contractor concerned. Some firms had negotiated EBAs, which included variable project-based RDO agreements to accommodate 5-day working week arrangements.

Overall, since construction workers' income and lifestyles could be significantly affected by a move to a 5-day week (especially a hard 5-day week), all respondents agreed that workers' and Unions' attitudes towards a 5-day week were critical to its successful implementation (especially on inner city, CBD projects where Unions have higher membership and representations).

Theme 26: The government could take the lead in mandating a hard 5-day week through DA conditions. However, this would need to reflect the diversity of projects across the industry and does not absolve clients from their need to share the potential risks of a hard 5-day week.

Many argued that the government could also show a lead by limiting DA conditions to a 5-day week because this would:

- Force the whole industry to change (apart from DA-exempt developments);
- Level the playing field by ensuring all firms are tendering on the same basis;
- Allow people to design all DA projects from the very start on a 5-day week program.

However, there were also reservations about the viability of the DA route:

- Clients would still need to adapt their normal 6-day week program and budget assumptions otherwise, the whole industry will then be tendering 5-day projects on 6-day project parameters;
- The resultant increase in costs may then lead to the cancellation of projects which are only viable in a 6-day scenario;
- This could also lead to the growth of the grey economy where tradespeople who wanted to work weekends to earn overtime, would be forced to work on informal projects (without DA approval) at even greater risk to their safety and well-being;
- DAs are an indiscriminate tool which cannot accommodate the many variables discussed in this report that influence the economic viability of a hard 5-day week. A significant amount of economic damage could, therefore, be done to many parts of the industry and people in the industry who like working weekends. DA conditions which mandate a 5-day week would, therefore, need to be responsive to different project constraints, which would be very complex and burdensome to implement and enforce.
- Most argued that clients were best able to mitigate the risks and harness the opportunities
 of a hard 5-day week because they controlled the whole project life-cycle. According to the
 principles of effective risk management, they should, therefore, take the risk.

9. CONCLUSION

This chapter addresses the research questions posed in Chapter 1. It concludes by acknowledging the limitations of the research and makes recommendations for further studies to build on, and test the transferability to other states, of the findings reported here.

9.1 Introduction

As stated at the start of this report, everyone has a right to a good WLB. Poor WLB is in no one's best interest. However, it has become clear throughout this report that the decision to adopt a 5-day week has potentially profound implications for one of Australia's largest industries and for the WLB of all those who work within.

The aim of this research was to ensure that everyone in the NSW B&C industry has a voice in the current 5-day week debate. This is the only way to make a representative and informed evidence-based decision about the pros and cons of a 5-day week. To do otherwise would be irresponsible and, despite best intentions, could potentially do more harm than good to many people and firms across the NSW B&C industry.

In achieving the above aim, this research set out to explore six main research questions:

- 1. What does work-life balance mean to people working in the NSW B&C industry?
- 2. What is the current work-life balance of people working in the NSW B&C industry and how does this vary across the workforce?
- 3. How will moving to a 5-day week affect people's work-life balance in the NSW B&C industry?
- 4. What are the potential costs and benefits of moving to a 5-day week for individuals, companies and clients in the NSW B&C industry?
- 5. What is the level of support for moving to a 5-day week in the NSW B&C industry?
- 6. Will a 5-day week assist in increasing women's participation in construction roles within the NSW B&C industry?

To answer these questions, a four-stage methodology was employed:

- Stage 1: A systematic literature review of high-quality peer-reviewed international research evidence relating to the potential impact of a 5-day working week on WLB;
- Stage 2: Semi-structured interviews (supported by documentary analysis) with a representative sample
 of 47 project planning, cost, project management, human resource management and safety experts from
 28 contracting and development firms across the NSW B&C industry.
- Stage 3: Semi-structured interviews with a representative sample of 64 people from across the NSW B&C industry.
- Stage 4: A major NSW state-wide survey of 1475 people who are representative of the NSW B&C industry, using a range of standardised WLB instruments.

It has become clear through this research that the answers to the above research questions are very complex and nuanced. Yet the debate about the 5-day week has sometimes been anything but. There is no simple answer to any question we have sought to investigate.

In summary, this report finds that one cannot generalise about WLB, long working hours and working weeks across the industry. For many people working in the NSW B&C industry, WLB is good, while for others, it can certainly be improved. On-project salaried workers, young people, those in relatively junior roles and some waged workers, especially on large inner-city commercial, residential and infrastructure projects appear to be doing the heavy lifting in terms of hours and days worked. This is related to the high value of weekend working on these projects. However, there are exceptions in other parts of the industry, where individual firm cultures can be problematic.

This report also finds that improving peoples' WLB is far more complex than just reducing hours and days worked. It is most effectively and efficiently achieved by providing people with greater and more equal access to flexibility and control over when, where, how and how long they work. If flexibility can be improved across the construction workforce, then there is no need to incur the potential risks of a 5-day week to individuals, employers and clients of the industry. However, unequal access to flexibility across the workforce and doubts about whether it can be achieved in practice create strong support for a mandated hard 5-day week (weekends off) as a way of forcing the industry to shut down. Nevertheless, this support varies significantly across the workforce and is contingent on two conditions:

- People's ability to significantly increase productivity to compensate for the lost weekend working (given that most are not prepared to tolerate lower pay and are concerned about the personal, safety and productivity implications of working longer hours during the week).
- Minimal risk to employers in the industry on which people's WLB ultimately depends (this requires clients to share the potentially significant risks of a 5-day week, be more transparent, reduce liquidated damages and plan their projects from the start as a 5-day week).

Given that most people consider these conditions unrealistic, if a 5-day week was imposed, a soft 5-day week (where sites are kept open on weekends) is currently considered the best compromise between individual, business and client interests. An increasing number of companies across the industry are already implementing this model with minimal risks to all involved.

The answers to the individual research questions posed in Chapter 1 are provided below.

9.2 Research question 1: What does work-life balance mean to people working in the NSW B&C industry?

Our results show that to people working in the NSW B&C industry, WLB means having the flexibility, time and resources to engage meaningfully and meet their individual expectations in both work and non-work domains. However, we found significant inequality in access to flexible working opportunities across the NSW B&C industry workforce. Many people wanted more flexibility and control over when, where, how and how long they worked. Ideal hours of work were also significantly lower than those being currently worked and most people wanted a stronger delineation between work and life outside work.

While the desire for greater flexibility was a common theme, perceptions of what an ideal WLB means vary greatly across the workforce. WLB means different things for every individual and depends on a dynamic range of personal, work-related, economic, environmental, cultural, psychological and societal factors.

We also found that when considering WLB, people in the NSW B&C industry do not just think of themselves. They are very much aware of the interdependency between their WLB and the success and prosperity of their employers' business, their projects and the clients that procure them. Therefore, the best approach to achieving WLB was widely considered to be one where individuals can negotiate flexibility within the constraints of the businesses and projects they work in.

In summary, our research shows that the concept of WLB is a highly complex, personal, multidimensional and dynamic construct. Improving people's WLB is far more complex than just reducing hours worked and is best achieved by providing people with greater and more equal access to flexibility and control over when, where and how they work. Ultimately, this requires the mutual responsibility of employers, employees, their representatives, and construction industry clients, who must set the constraints under which the industry works.

9.3 Research question 2: What is the current work-life balance of people working in the NSW B&C industry and how does this vary across the workforce?

Our results provide evidence that a culture of long working hours and working weeks, which is damaging to WLB, appears to have become normalised in some parts of the construction industry. Those at particular risk work on large commercial and infrastructure projects in city/urban locations. However, there are exceptions in other parts of the industry, where individual firm cultures can be problematic, and projects of any size and location can be poorly resourced.

We found many reasons for this damaging culture of long hours and working weeks in some parts of the industry. These include the way that projects are assessed, designed, planned and tendered on a 6-day week model; the underlying assumption by many clients that the lowest price equals best value; an increasingly uncertain construction environment; unrealistic programs and budgets; and the tendency to use one-sided fixed term and fixed price contracts underpinned by excessive liquidated damages.

While clients have a major role in improving peoples' WLB, increasing finance costs, which place greater emphasis on shorter project durations do not make this easy. At a contractor level, the pressures to work a 6-day week are also exacerbated by labour and skills shortages in many areas, increasing material costs, and labour cost pressures without an incumbent increase in productivity. There also appears to be a psychological dependency by many planners and construction managers on relying on weekends for catchup time and float and a lack of incentive to innovate to adopt a shorter working week model. The tendency

to accept long working hours and working weeks is further reinforced by institutionalised workplace cultures and management practices which expect people to sacrifice their WLB and do anything at any cost to get the job done. Finally, at an individual level, increasing costs of living pressures mean that many people choose to work longer hours and weeks, even knowing that there may be significant costs to their own health and well-being.

Despite the normalisation of long working hours, long working weeks and poor WLB in some parts of the construction industry, making generalised statements across the whole construction industry is problematic. Many people acknowledge that relatively high levels of pay compensate for the higher hours worked compared to other sectors, and many are happy to work longer hours to earn this income. We also found a high variation in hours and days worked and WLB across the industry and that in some parts of the industry WLB can be very good. This depends on a wide range of factors such as their employer's or project's organisational culture, personal characteristics (age, marital status, sex, personal preferences and circumstances, etc.), people's seniority and job, the type of project they worked on (complexity, location, DA conditions etc.) and the sector of the industry they worked in. However, in general, we found that despite large variations in hours and days worked and WLB across the industry, people can generally be categorised into three main groups: Off-project salaried staff in management/leadership and administrative roles; On-project salaried workers in professional and supervisor roles; and on-project wage earners in operative/trade roles.

Overall, we found that on-project salaried workers, young people in relatively junior roles and waged workers on large city commercial and infrastructure projects appear to be doing the heavy lifting, in terms of hours and days worked. Work pressures are exacerbated even further when partners are also working, by study, caring and family responsibilities and if there is no local family support, as is often the case when people relocate their families for projects. Many young salaried workers feel that long work hours have become a 'right of passage' into more senior and privileged roles with greater control over WLB. Many feel powerless in being able to control their WLB and are faced with either having to accept the status quo or leave the industry. Many salaried workers feel a sense of inequity and unfairness at the amount of unpaid overtime compared to their waged counterparts.

9.4 Research question 3: How will moving to a 5-day week affect people's work-life balance in the NSW B&C industry?

Our research shows that generalised statements about the benefits of a 5-day week and its impact on WLB should be treated with great caution. They are highly simplistic and could potentially damage some firms and groups in the NSW B&C industry. The research evidence is scant, and the relationship between a 5-day working week and WLB is highly complex and varies over time and from project to project and person-to-person depending on a wide range of factors.

While we found that a 5-day week could improve WLB for many people in the industry, the benefits were not considered clear, universal or guaranteed. The WLB of many people in the NSW B&C industry can be disadvantaged by a 5-day week, and the relative risks and benefits depend on a wide range of factors such as the 5-day week model employed, people's personal circumstances, WLB preferences, age; gender; job; marital status; wider economic conditions and the culture, nature and types of organisations they work for and projects they work on. These factors and their complex interdependencies will only become evident over time as more research is undertaken across a variety of emergent 5-day week scenarios and contexts.

9.5 Research question 4: What are the potential costs and benefits of moving to a 5-day week for individuals, companies and clients in the NSW B&C industry?

At an individual level, there was considerable uncertainty about whether a 5-day week would benefit peoples' WLB or not. The risks and benefits of a 5-day week to individuals working in the NSW B&C industry depend on a variety of factors, such as the model employed. For example, in terms of the 5-day week model employed, most people favoured a hard 5-day week, which gave them weekends off to relax with friends and family and recuperate from work. A hard 5-day week would force a project to shut down on the weekends, preventing the need and temptation to work a 6-day week if the project fell behind. However, given peoples' widespread concern for their employer's and project's interests, this support was highly contingent on the potential negative impacts of a hard 5-day week on project costs and programs, which were seen to be significant and largely unavoidable because of the way that they would be passed to the contractor and its supply chain on most projects.

We also found that most people did not favour a compressed hard 5-day week model – which appears to be the most common 5-day week model at present. This model involves working longer hours during the week to

compensate for the loss of weekends. Some of the many concerns included increased fatigue during the week (especially for heavy physical or cognitively demanding jobs), safety risks, reduced productivity, and inability to meet daily caring, family and personal responsibilities during the week. Many also noted that due to the longer working days during the week, administrative work normally done at the end of every day during the week would be shifted to the weekend to be done in peoples' own time, even if the site was shut down. There were also significant concerns about a compressed working week among many waged earners regarding the potential loss of overtime payments for being unable to work weekends. These concerns were being exacerbated by increasing costs of living (especially for young people with large mortgages and those not able to work longer days during the week due to family and other weekday commitments or the physically and cognitively demanding nature of their work). This means that a hard 5-day week would introduce significant inequities across the NSW B&C workforce in being able to earn overtime. There were also concerns that if prevented from working weekends, many waged workers would likely look for weekend work on other 6-day week jobs with competitors, in the unregulated grey construction economy, or leave the industry altogether. It is difficult to control for this risk, and on top of longer hours during their week, this would result in much higher levels of fatigue than a normal 6-day week. It could also exacerbate the current labour shortage crisis in many parts of the industry.

At a business level, our results indicate that different 5-day week models suit different projects and firms. Some projects suit a hard 5-day week, others suit a soft 5-day week, and some suit a 6-day week. This depends on a range of variables that determine the value of Saturday working, such as project size, project location, project complexity, DA conditions, client attitudes towards sharing risk to program and budget, and wider prevailing economic conditions. It was widely agreed that unilaterally imposing a hard 5-day week on the industry would not respect these differences and would produce negative results in many projects where this model was not suited.

There were also many concerns about the business impacts of a hard 5-day week. While there was a high level of variability and uncertainty as to the implications of moving to a hard 5-day week. Estimates varied between +5% and +25% for time (with an average of +14.55%) and 0.4% to 4% for cost (with an average of 1.88%). This typically varied depending on a wide range of other assumptions, such as the extent to which a project was planned and designed from the start to be a 5-day week, the nature of the project itself (location, DA conditions, complexity/risk, number of workers etc), the productivity value of Saturday working, client willingness to adjust programs and budgets, market and wider economic conditions, subcontractor attitudes towards working Saturdays, risk of liquidated damages etc. It appears that subcontractors are also currently under-pricing the impacts of a hard 5-day week because they can currently amortise its costs across other 6-day week projects. However, if a hard 5-day week was mandated, this would be more difficult, and subcontractor prices would need to reflect this. There were also significant productivity and safety concerns about a hard 5-day week.

Most people agreed that it was likely that these potential cost and time risks would be passed to the construction supply chain because most clients (apart from the most enlightened and socially responsible clients) would not be willing to accept or share them. The many small firms that dominate the construction industry would suffer the most because they have the least power to negotiate with clients about the fair distribution of risks and are also the least able to manage them if they eventuate. Potential impacts could, therefore, include an increase in bankruptcies and shelved marginal projects, which would undermine the general economic prosperity of one of Australia's largest industries and the potential government tax revenue derived from it.

9.6 Research question 5: What is the level of support for moving to a 5-day week in the NSW B&C industry?

As discussed above, support for a 5-day week varies significantly across the NSW B&C industry depending on a wide range of variables such as the 5-day model employed (hard, soft, hybrid); age; marital status; family/caring commitments; sex; one's role or trade; the way one is paid (salaried or waged); broader economic conditions; cultural factors; costs of living pressures; commuting times; the relative value of Saturday working on a project; and the risks which a 5-day week pose to business on which the prosperity and security of people depend etc.

Support was also tempered by uncertainty about what a 5-day week means in practice. Many people were cynical about the hard 5-day week and considered it more of a myth than a reality. It was widely noted that many hard 5-day projects regularly work 6 and even 7 days a week (especially when projects fall behind) and that it was common for principal contractors to impose 6-day week contracts on their subcontractors in case they need them to work a 6-day week. The implementation, monitoring and enforcement of a 5-day week by clients is also considered unreliable and variable.

Many also felt that they could not support a 5-day week until more reliable evidence was available about its pros and cons. A few firms have begun to tender on and experiment with a hard 5-day week in response to growing government requirements to submit alternative 5-day and 6-day tenders. However, most considered that there was a lack of rigorous and reliable evidence about the pros and cons of a hard 5-day week for individuals and businesses for assessing such bids and making decisions about the best value for money. Few projects have been finished, and data about cost and time implications depend on a range of assumptions and are highly variable.

Many people's support for a hard 5-day week is based on their sense of inequity and unfairness in their access to flexibility provisions and the amount of unpaid overtime they work compared to their waged counterparts. This makes a mandated hard 5-day week attractive to those disadvantaged by the current situation (especially on-site salaried workers). This is because it would force the whole industry to shut down on weekends and stop the temptation to work weekends if the project is behind. By forcing people to take a weekend off, they could relax, disassociate themselves from work, recuperate, re-energise, and re-set for the next working week. They could also socialise on the weekend with friends and family and attend sporting events, etc. Mandating a hard 5-day week would also prevent firms from gaming the system by claiming they are working a 5-day week when they are actually working 6 days.

However, individual support for a hard 5-day week was conditional on not damaging the competitiveness of the businesses people worked for and not reducing the high salaries, which attracted many people to the industry. High salaries were widely regarded as adequate compensation for high hours and long weeks worked, and rather than taking a pay cut for working a shorter working week, most people preferred to increase their productivity to compensate for the lost Saturday in a hard 5-day week model. However, it was also acknowledged that increasing productivity during the week was difficult for some people due to the physical and cognitive constraints of their work. Furthermore, measuring productivity is difficult in many roles due to a lack of reliable methodologies, data for benchmarking and complex interdependencies with other roles/trades.

From a business perspective, most respondents agreed that for a hard 5-day week to be viable, it is important that it was designed-in from the start of a project and not retrospectively imposed at the tender stage. Most importantly, the vast majority felt that clients must share the risk of a 5-day week by adjusting their program and budget parameters. Clients also need to level the playing field by mandating it for all tenderers and reducing incentives to work weekends by reconsidering the way they allocate the risks of delays and impose liquidated damages, which were seen as excessive by many people. There is also a need for greater transparency, consistency and clarity from clients about what a 5-day means, how it is assessed and whether they are prepared to adjust their programs and budgets to accommodate it. Many felt that there was a lack of transparency about how such bids were assessed, that there was an uneven playing field and that they could be disadvantaged by advocating a 5-day week when competing against firms which were still tendering on a 6-day week.

However, in the current economic climate, risk sharing was seen as unlikely for most clients, especially private clients. While some progressive government clients may consider sharing these potential risks, many felt that such support is inconsistent and varies between and within government departments. A soft 5-day week was therefore widely considered a good compromise between business and individual interests because firms can operate a 6-day week onsite and retain the benefits of weekend working (very significant on some projects) while allowing people to work 5 days a week. This model has been operated and refined by many firms in the industry with little impact on their business and project costs and budgets for clients. A soft 5-day week also allows firms to operate a 5-day week while remaining competitive with other 6-day week firms.

Most people considered that WLB was best improved through greater flexibility rather than mandating a 5-day week. It was also felt to be less costly and risky for the industry, given the abovementioned concerns about how the cost and program risks of a hard 5-day week would be shifted to contractors and subcontractors. This could be done by requiring firms to develop and implement formal flexibility policies and communicate them effectively across the workforce; ensuring flexibility initiatives are formal rather than informal and equally available to everyone regardless of role, age, gender and project circumstances; developing complementary policies to support flexible working such as measure a person's performance based on outputs rather than hours worked; and ensuring flexibility policies and initiatives are both responsive to the needs of individuals and their organisations and project teams so that organisations do not suffer and people are not ostracised for adopting flexible working.

In addition to the above, we also found a number of ethical concerns which undermined peoples' support for a 5-day week. Numerous people felt that there was a cancel culture in the industry which prevented them

from speaking out about their concerns. There was also a feeling that the debate was being dominated by a small group of professional salaried office workers who had the most to gain from a 5-day week but were not necessarily representative of the wider construction workforce. Many, therefore, felt that the 5-day week debate was outside their control and that they did not have a voice. There was also a sense that WLB was more complex than hours worked and that the 5-day week debate was distracting attention away from other problems that could improve WLB across the industry if addressed. The timing of the current 5-day week debate was also seen to be skewing results, and many people felt that the positive aspects of work were not adequately recognised in the current 5-day week debate.

Finally, we found that support for a 5-day week is highly emotive and socially constructed. For example, many peoples' views seemed to be shaped by current media stories about the results of 4-day week trials in other industries. As we show in this report, these tend to be overtly positive in nature and not necessarily representative of and transferable to the construction industry. Arguments for the 5-day week are also closely linked to issues such as improving gender equality, which many people feel very passionately about. However, as shown in this report, reliable evidence about the pros and cons of a 5-day week (and a 4-day week) is scarce, and the limitations and generalisability of existing research are not always apparent to the uniformed or time-poor manager or policy-maker. Support for a 5-day week can, therefore, be superficial rather than evidence-based and can change significantly when the uncertainties and pros and cons of a 5-day week are made clear.

9.7 Research question 6: Will a 5-day week assist in increasing women's participation in construction roles within the NSW B&C industry?

We found divided evidence and opinions on whether a mandated 5-day week would increase female recruitment, retention and progression in the construction industry. Many considered a compressed 5-day working week (working longer hours during the week) to worsen WLB for women, and there is much research evidence to support this. Furthermore, the vast majority saw the delineation between men and women as irrelevant and unhelpful and based on outdated assumptions about women's caring role in society. Most people (including female respondents) argued that the industry needs to be made more appealing for both men and women and that the best way to do this was to improve flexibility provisions and equality of access to them rather than impose a hard 5-day week. If flexibility cannot be improved to accommodate WLB, a hard 5-day week could also be beneficial. However, as discussed above, this is contingent on a wide range of factors determining its potential negative impacts on individuals and businesses.

9.8 Conclusion

Given the complexities and limitations in existing evidence revealed in this report, our results call for a much more nuanced debate about the relationship between a 5-day week and WLB. They caution that despite the best intentions if policies or management decisions are developed and implemented without consideration of these complexities and limitations, the universal imposition of a 5-day working week may be counterproductive and do more harm than good to the construction industry and the people and firms that work in it. This could, in turn, have negative spill-over effects on families, communities and governments that depend on this major industry to provide employment and tax revenues to spend on community services.

While the generalised nature of the current 5-day week debate is problematic in many ways, it has been valuable in starting a conversation about the relationship between:

- The industry's culture and its impact on employee WLB and, in turn, wellbeing;
- What companies are expecting of their employees (the balance between the pursuit of profit and employee well-being);
- What can be reasonably expected of the industry by clients in terms of time, price and risk without impacting people's lives negatively (the role of clients in determining work-life balance);
- What the industry can reasonably ask of people to deliver to comply with these requirements (WLB) within
 the constraints of what people are capable of delivering (productivity constraints);
- The need for companies to make a reasonable profit to provide people with secure and decent employment into the future which provides a healthy WLB (the balance between profit and people).

We conclude this report by noting the limitations of this research. All research has limitations, and it is important to acknowledge them in generalising the results to other states and wider contexts.

First, it is important to appreciate that the empirical research presented in this report can only be generalised to the NSW B&C industry. To understand how the 5-day week would affect the entire Australian B&C industry

more comparative research is needed across other Australian states where working practices, conditions and cultures can vary significantly.

Second, more research needs to be undertaken in different economic contexts. At the time of the research, the industry was struggling with high material and labour costs, high interest rates, low margins and labour shortages. This may have negatively affected attitudes towards a 5-day week because of the extra risks involved. At an individual level, it is also possible that the cost of living crisis, especially for young people, may have negatively influenced attitudes towards a 5-day week – especially for those wage earners whose income could be put at risk. On the other hand, the relatively buoyant economic market for labour in which this research was undertaken may have also made a shorter working industry week more attractive than it might be in harsher economic conditions where there is likely to be a greater scarcity of work and opportunities to earn income and overtime.

Third, more research using consistent methodologies is also needed into the pros and cons of different 5-day week models as they emerge in different contexts.

Finally, it is important that any future research better acknowledges and addresses the current methodological limitations of existing studies in this field. These are not always acknowledged by researchers or evident to the uninformed, uncritical, or time-poor reader. For example, to ensure that future research is representative of the B&C industry's full diversity at an individual and firm level, there needs to be less reliance on small, narrow and unrepresentative samples and anecdotal case studies which cannot be generalised to the wider construction industry. Research also needs to better consider onsite workers and those not living in traditional family-type structures (married with children). The underlying assumption that work and life are always in conflict also needs to be challenged, and more attention needs to be given to the positive aspects of work and the many non-work factors that can cause poor WLB. Finally, it is critical to better recognise the interdependency between employee, employer and client interests and, if the 5-day week is to be mandated, to better understand the portfolio implications of implementing a 5-day week out across the whole construction industry rather than just on individual projects.



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APPENDIX A: STAGE 1 INTERVIEW QUESTIONS

- 1. Describe how you would organise the project (in terms of work days and hours) to achieve a 5-day working week.
- 2. Describe the assumptions you have made in arriving at this solution (type of project, type of client, procurement approach, assumptions about plant and labour resources, additional organisational support required to make this work such as training, additional staff support and workplace flexibility arrangements etc).
- 3. Describe and estimate in % terms potential cost savings or extras which your 5-day working week would make to the project (compared to a normal 6-day project).
- 4. Describe and estimate in % terms potential time savings or extras which your 5-day working week strategy would make to the project (compared to a normal 6-day project).
- 5. Who would likely bear the extra time and cost risks of moving to a 5-day working week and why?
- Describe and estimate any other potential performance impacts which your 5-day working week strategy
 would have for the project (compared to a normal 6-day project). This may include safety, quality and
 environmental implications.
- 7. What were the main challenges in responding to this 5-day week request?
- 8. How could the potential risks of moving to a 5-day week be mitigated?
- 9. How can potential opportunities be maximised?
- 10. Describe who would benefit most from a 5-day working week and why?
- 11. Having worked this through, do you think there would be general support in the industry for moving to a 5-day week and what would any support depend on?

APPENDIX B: STAGE 2 INTERVIEW QUESTIONS

Stage 1 of interview: Your background:

- 1. Role and what it involves?
- 2. Age?
- 3. Are you married, and do you have dependent children?

Stage 2 of interview: Your work-life balance:

- 4. What does work-life balance mean to you?
- 5. How many hours a week do you work now and days a week?
- 6. What would be your ideal work schedule, considering the realities of work and life?
- 7. How good is your current work-life balance (very good, good, acceptable, poor, very poor)?
- 8. Could you explain why?
- 9. What are the main threats to your work-life balance and why? We would like you to think of the following areas and rank them in order of impact:
 - Employment-related factors (such as hours of work, workload pressures, weekend working, poor pay, lack of control over when, where and how I work, employment conditions, long communing time, poor workplace cultures such as presenteeism, intolerance to diversity, discrimination, sexism, bullying, unsupportive managers and colleagues, etc.);
 - Personal factors caused by life outside of work (such as personal life circumstances and relationships, cultural and/or religious commitments and expectations, caring, family and other commitments and responsibilities, etc.);
 - Construction industry operating environment (such as unsupportive industry culture, clients setting project deadlines and budgets, low margins, unfair risk distributions, industrial relations environment, etc.).
 - General economic and environmental factors (such as cost of living pressures, housing affordability, housing insecurity, transportation challenges, etc.)
 - Other factors?
- 10. What are the main supports to your work-life balance and why? We would like you to think of the following areas and rank them in order of impact:
 - Employment-related factors (such as hours of work, workload pressures, weekend working, poor pay, lack of control over when, where and how I work, employment conditions, long communing time, poor workplace cultures such as presenteeism, intolerance to diversity, discrimination, sexism, bullying, unsupportive managers and colleagues, etc.);
 - Personal factors caused by life outside of work (such as personal life circumstances and relationships, cultural and/or religious commitments and expectations, caring, family and other commitments and responsibilities, etc.);
 - Construction industry operating environment (such as unsupportive industry culture, clients setting project deadlines and budgets, low margins, unfair risk distributions, industrial relations environment, etc.).
 - General economic and environmental factors (such as cost of living pressures, housing affordability, housing insecurity, transportation challenges, etc.)
 - Other factors?

Stage 3 of interview: How a 5-day week might affect your work-life balance:

- 11. Have you ever worked a 5-day week and if so, please explain how it worked?
- 12. Imagine your employer said you are moving to a 5-day week.
 - They offer 2 options. Please tell us what you think about each one and how it will impact your WLB
 - A soft 5-day week this involves working a rotating schedule of alternate weekdays and weekends off while keeping sites open on weekends. There are many other work schedules in which this can be achieved and if you have worked one, please describe how it worked.
 - A hard 'compressed' 5-day week this involves working Monday to Friday and shutting the site down on Saturdays apart from exceptional circumstances allowed by the client or where activities can pose unacceptable risks to workers and public health.
- 13. How would each affect your WLB?

14. Assuming the client won't change the program or budget to accommodate a 5-day week and your firm chooses not to put more labour on site to cover the lost weekend working, you have to now produce the same building in 5 days, which you would normally have to produce in 6.

Which option would you prefer:

- Work longer days (up to 2 hours) during the week.
- Work more productively during the week (about 16%) to make up for the lost day on Saturdays.
- Take a pay cut of about 16%.
- 15. Overall, would you support a 5-day week? Is this support unconditional or conditional? If conditional, conditional on what?
- 16. Which of the above 5-day scenarios would your family support the most and why?
- 17. Do you think your spouse/partner/family would support a 5-day week, and why? Is this support unconditional or conditional? If conditional, conditional on what?
- 18. Which of the above 5-day scenarios would your partner, spouse or family support the most and why?
- 19. Do you think your employer would support a 5-day week and explain why? Is this support unconditional or conditional? If conditional, conditional on what?
- 20. Which of the above 5-day scenarios would your employer support the most and why?
- 21. Do you think your employer's support would have conditions?
- 22. Do you think that a 5-day week will assist in increasing women's participation in the Building and Construction Industry?
- 23. Overall, do you support moving to a 5-day week for the industry as a whole and why? Is this support unconditional or conditional? If conditional, conditional on what?

APPENDIX C: STAGE 3 SURVEY QUESTIONS

Section 1- About you. In this section we ask some basic questions about

you.
Please answer by ticking the appropriate box.
What is your sex?
O Male
○ Female
O Non-Binary
What is your age?
O 15-24
O 25-35
36-45
O 46-55
O 56-65
Over 65

What is your marital status?				
Single				
Married or long-term de-facto partner				
Does your partner or spouse work?				
○ Yes				
○ No				
Do you have dependent children?				
Yes				
○ No				
Are you a single-income or dual-income household?				
○ Single income				
O Dual income				
Are you self-employed?				
○ Yes				
○ No				
What is your job?				
Senior Director/Executive management				
Head office-based management, administration				
Site-based project management, site management, supervision, administration				
Construction Worker/Tradesperson				
Labourer				

What is your main job?

Bricklayer and stone mason
Painter
Carpenter and joiner
Stonemason
Plumber (general)
Air conditioning and Mechanical Services Plumber
Cabinet maker
Glazier
Wall and floor tiler
Plasterer
Structural Steel and Welding
Sheetmetal Trades Worker
Floor finisher
Roof tiler
Roofer
Gas fitter
O Drain layer
Crane driver
O Hoist operator
Opgman
Other

Are you a Union member?
O Yes
○ No
Are you an apprentice (studying and training in trades)?
O Yes
○ No
Are you a cadet (studying and training in management)?
O Yes
○ No
How permanent is your job?
Permanent
O Fixed term contract
Casual (whenever I can get it)
How are you paid?
Fixed salary (no paid overtime)
Fixed salary (paid overtime)
O Hourly wage (paid overtime)
What size firm do you work in?
Micro business (fewer than 10 employees)
Small business (10 to 49 employees)
Medium-sized business (50 to 249 employees)
Large business (250 or more people employees)

What sector do you mainly work in?			
Commercial building			
Residential building (apartments)			
O House building			
Civil and infrastructure			
What type of firm do you work in?			
O Principal contractor			
O Sub-contractor			
Consultant			
Where do you mostly work?			
City areas			
Regional areas			
Remote areas			
What ethnic group do you belong to?			
Oceanian (Australian, New Zealand, Pacific Islands)			
European			
Middle Eastern			
Asian (South East, North East, Central)			
Americas (North, South and Central)			
African			
Do you identify as an Aboriginal or Torres Strait Islander?			
O Yes			
○ No			

Have you got a registered disability or a diagnosed long-term illness which affects your work?
○ Yes
○ No
Section 2- Your current working week. In this section, we ask some questions about your normal working week.
Please answer by ticking the appropriate box.
How many <u>days a week</u> do you typically work (including paid and unpaid overtime)?
O 1
O 2
O 3
O 4
O 5
O 6
O 7
How many <u>hours a day</u> do you typically work (including paid and unpaid overtime)?
C Less than 8
O 8
O 9
O 10
More than 10

How many hours a week do you typically work (including paid and unpaid overtime)?		
C Less than 35		
O 36 to 40		
O 41 to 45		
O 46 to 50		
O 51 to 55		
O over 55		
How much flexibility do you have in the number of hours you work?		
O No flexibility		
O Some flexibility		
O Complete flexibility		
How much flexibility do you have in where, when and how you work?		
O No flexibility		
O Some flexibility		
O Complete flexibility		
How many hours <u>paid overtime</u> per week do you typically work?		
None		
O 1-5		
O 6-10		
O 11-15		
O 16-20		
O over 20		
How many hours unpaid overtime per week do you typically work?		
None		
O 1-5		
O 6-10		
O 11-15		
O 16-20		

O over 20

How many hours do you spend <u>commuting</u> per week?				
O 1-5	O 1-5			
6-10	O 6-10			
0 11-15				
O 16-20				
O over 20				
How many wee	ekends per month do you typically work?			
O 0				
O 1				
O 2				
Оз				
O 4				
Why do you wo	rk weekends (you can tick more than one box)?			
	Because it is expected			
	Because my career will suffer if I don't			
	Because everyone does it			
	Because I can't get all my work done in the week			
	Because I need the extra money			
	Because I like the extra money			
	Because I enjoy it			
	Because I have no choice			

Are you available for work after 'normal' working hours (by phone or email)?			
Constantly			
Frequently			
Occasionally			
Rarely			
Never			
Section 3 - Your work-life balance. In this section we as some questions about your current work-life balance			
A good work-life balance means you can meet your expectations in both work and life, emotionally and financially.			
Please answer by ticking the appropriate box.			
What $\%$ of your time do you spend on the following activities in a typical week (should add up to 100%)?			
Work (including second and third jobs)			
Family (kids and spouse)			
House duties (cleaning, garden etc.)			
Caring (for elderly etc.)			
Study (TAFE, college, university etc.)			
Social activities (friends, clubs etc.)			
Community work/volunteering/religious commitments			
How good is your current work-life balance?			
O Very good			
Good			
Acceptable			
Poor			
O Very poor			

Which of the following <u>work-related factors</u> negatively affect your work-life balance? (you can tick as many boxes as you like)

Long daily working hours
Working weekends
Commuting time
Overtime
Shift work
Unreliable work hours
Irregular work hours
Lack of flexibility over work hours
Lack of flexibility over where, when and how you work
Being constantly available for work (by phone or email)
Poor workplace culture (expectations to work long hours)
Unsupportive workplace (no flexibility, childcare etc.)
Fear of losing my job
High workload/intensity
Negative behaviours from colleagues at work (bullying, discrimination etc.)
Time pressures
Not enough breaks during working days
Not enough breaks between working weeks
Poor pay (need to work long hours for income)
Being constantly available by phone or email

Unrealistic project programs			
Under-resourced projects			
Poor project planning			
Poor project supervision/management			
Vhich of the following non-work-related factors negatively affect your work-life balance? you can tick as many boxes as you like)			
Study commitments (TAFE, college, University etc.)			
House duties (cleaning, garden etc.)			
Caring responsibilities (elderly, disabled etc.)			
Family responsibilities			
Parental responsibilities			
Partner work commitments			
Outside leisure commitments such as sport, volunteering etc.			
Poor time management by me			
Unstable home life			
Insecure housing			
Cultural and religious expectations			
Cost of living pressures (house prices, inflation, interest rates etc.)			
Transportation problems (unreliable trains, traffic congestion etc.)			

How much do you agree with the following statements? (answer all options)

	strongly agree (5)	agree (4)	neutral (3)	disagree (2)	strongly disagree (1)
I need to work overtime to get my job done.	0	0	0	0	0
Work commitments prevent me from participating fully in life outside work.		0	0	0	0
Life commitments prevent me from performing fully at work.	0		0	0	0
The culture at work can negatively affect relationships outside work.	0	0	0	0	0
I would like to work more days a week.	0	0	0	0	0
I would like to work less days a week.	0	0	0	0	0
I would like to work more hours a week.	0	0	0	0	0
I would like to work less hours a week.	0	0	\circ	0	0

I would like my weekends free.	\circ	0	0	0	0
I would like my weekends free and could take a pay cut for it	0	0	0	0	0
I would like my weekends free and could safely work longer hours during the week to compensate.		0	0	0	0
I would like my weekends free and could safely increase my productivity during the week to compensate.			0	0	0
I would like to work a rotating schedule where I get alternate weekdays and Saturdays free.	0	0	0	0	0

How does your current work-life balance affect your life? (answer all options)

	very negative (1)	negative (2)	no impact (3)	positive (4)	very positive (5)
Job satisfaction	0	0	0	0	0
Job commitment	0	\circ	\circ	\circ	\circ
Job performance	0	\circ	\circ	\circ	\circ
Job productivity	0	\circ	\circ	\circ	\circ
Absenteeism from work	0	0	\circ	\circ	\circ
Work relationships	0	0	\circ	\circ	\circ
Attention to quality	0	\circ	\circ	\circ	\circ
Attention to safety	0	\circ	\circ	\circ	\circ
Accident proneness	0	\circ	\circ	\circ	\circ
Wanting to quit my job	0	\circ	\circ	\circ	\circ
Wanting to quit the construction industry	0	0	0	0	0
Physical health/fitness	0	\circ	0	\circ	\circ
Mental health	0	\circ	\circ	\circ	\circ
Fatigue	0	\circ	\circ	\circ	\circ
Stress in work	0	\circ	\circ	\circ	\circ

Stress at home	0	\circ	\circ	\circ	\bigcirc
Diet	0	\circ	\circ	\circ	\circ
Sleep	0	\circ	\circ	\circ	\circ
Never being able to fully relax (19)	0	\circ	\circ	\circ	\circ
Alcohol consumption	0	\circ	\circ	\circ	\circ
Smoking	0	\circ	\circ	\circ	\circ
Doctor visits	0	\circ	\bigcirc	\bigcirc	\circ
Life satisfaction in general	0	0	0	0	\circ
Friendships	0	\circ	\circ	\circ	\circ
Family relationships	0	\circ	\circ	\circ	\circ
Spouse/romantic relationships	0	0	\circ	\circ	\circ
My general mood	0	\circ	\bigcirc	\bigcirc	\circ
Exercise and leisure time (28)	0	\circ	\circ	\circ	0
Attendance at important family events	0	0	0	0	0
Financial costs (like childcare)	0	0	0	0	\circ
Spouse career choices	0	0	0	0	\circ
Plans to start a family	0	\circ	\circ	\circ	\circ

How much would the following initiatives improve your work-life balance? (answer all options)

	Significantly improve (5)	Slightly improve (4)	Not affected (3)	Slightly worsen (2)	Significantly worsen (1)
Improving workplace culture (tolerant to work-life balance)	0	0	0	0	0
More supportive supervisors and line managers	0	0	0	0	0
More supportive work colleagues	0	0	0	0	0
Greater flexibility in hours worked	0	0	0	0	0
Greater flexibility in where, when and how you work	0	0	0	0	0
Part-time work options	0	0	0	0	0
Job sharing	\circ	\circ	\circ	\circ	\circ
More leave flexibility	0	\circ	\circ	\circ	\circ
Better parental leave options	0	0	0	0	0
Time off in lieu of overtime	0	\circ	0	0	0

Options to work from home and remotely	0	0	0	0	0
Unpaid leave	0	\circ	\circ	\circ	\circ
Well-being programs at work (mental health awareness, fitness programs, resilience training, etc.)	0				0
Family- friendly work place (Child care, prayer rooms, parenting room etc.)	0				0
Carers leave and assistance	0	\circ	\circ	\circ	\circ
Shift work	0	\circ	\circ	\circ	\circ
Rostering	0	\circ	\circ	\circ	\circ
More technology (to improve productivity)	0	0	0	\circ	0
Training to work more productively	0	\circ	\circ	\circ	0

Improved project management and supervision	0	0	0	0	0
More realistic project budgets	0	0	0	0	0
Resource projects properly	0	0	0	0	\circ
More realistic project programs (24)	0	0	0	0	\circ
Better project planning	0	\circ	\circ	\circ	0
Improved site facilities for workers (clean toilets, disability access, cafeteria, etc.)	0	0	0	0	0
More regular breaks at work (to reduce fatigue)	0	0	0	0	0

Section 4- Working a 5-day working week in reality In this section we ask how a 5-day week might affect your work-life balance.

By a 5-day week, we mean not working on weekends (apart from exceptional circumstances as permitted by the client or where work presents a risk to public safety).

Please answer by ticking the appropriate box.

How would the following 5-day week scenarios affect your work-life balance?

	Significantly improve (5)	Slightly improve (4)	Not affected (3)	Slightly worsen (2)	Significantly worsen (1)
Working 5 days and taking a pay cut for not working the weekend	0	0	0	0	0
Working 5 days and extra hours every day to avoid a pay cut	0	0	0	0	0
Working 5 days and more productively every day to avoid a pay cut		0			
Which of the follo	owing 5-day wee	ek scenarios do y	you prefer?		
	lays and having every		Saturday free (2)		

income on weekends?
O Yes
○ No
Possibly
If you were required to work a 5-day week on one project, do you think your employer would require you to work a sixth day on another project?
O Yes
○ No
Possibly
Do you think that there should be a mandatory 5-day week with every weekend off for the whole construction industry, with no exceptions?
Yes
○ No
Undecided

What would be the perfect work week for you (please be realistic in what your employer would accept and think about work hours, where you work and pay)?

APPENDIX D: FIGURES

Figure 1: Self-perceived WLB (N=1230)

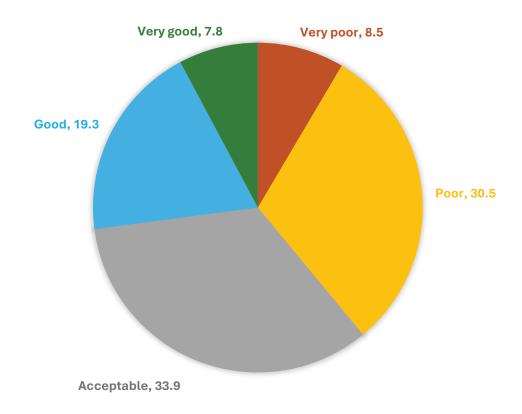


Figure 2: Working days a week (including paid and unpaid overtime) (N=570)

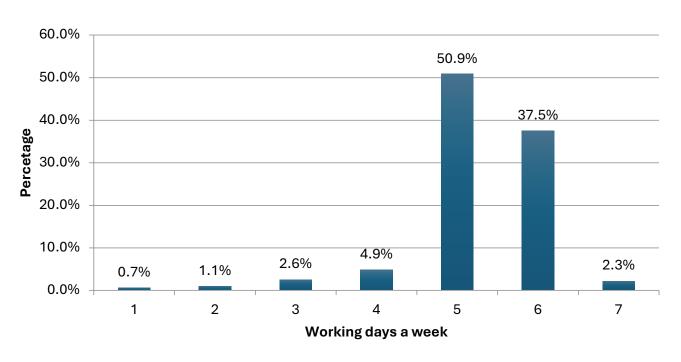


Figure 3: Working hours per day (N=569)

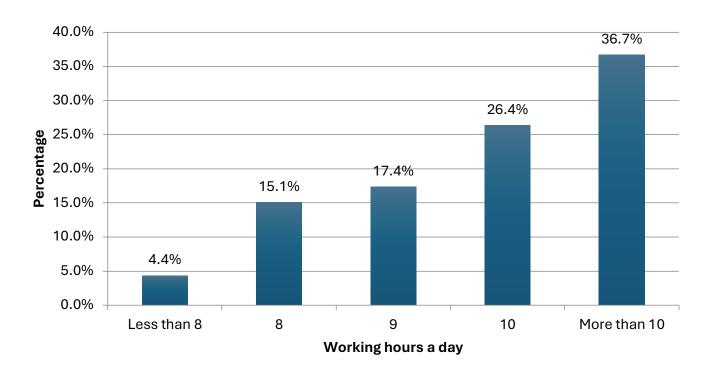


Figure 4: Working hours a week (including paid and unpaid overtime) (N=568)

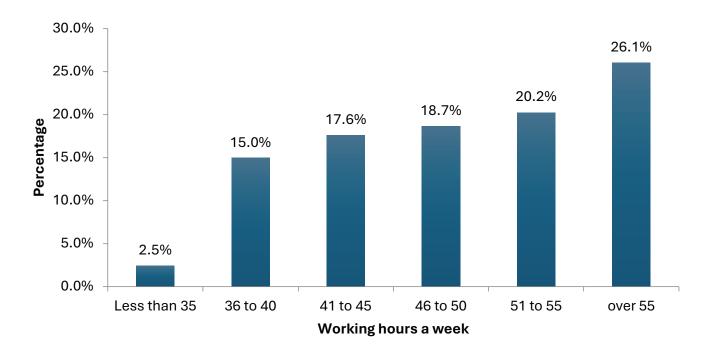


Figure 5: WLB versus working days per week (N=491)

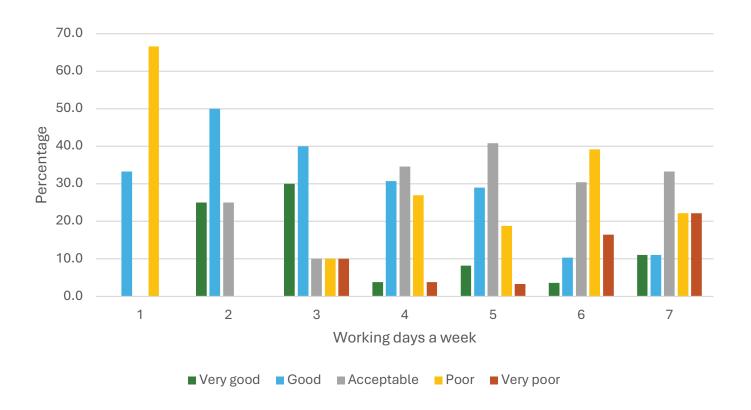


Figure 6: WLB versus working hours per day (N=495)

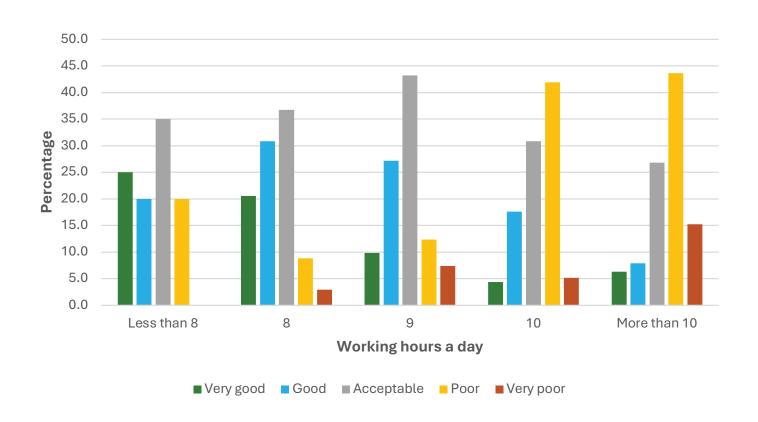


Figure 7: WLB versus working hours per week (N=506)

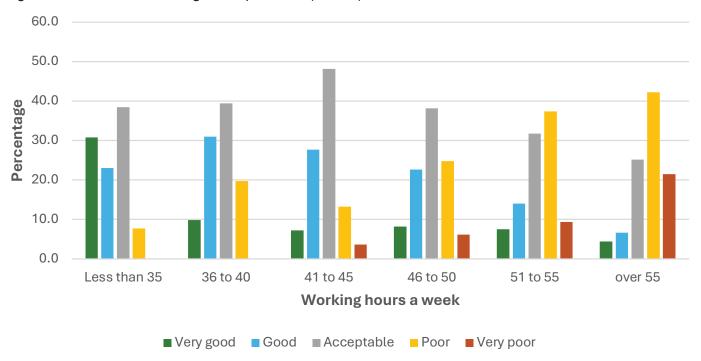


Figure 8: Hours and days worked between city and regional areas (N=153)

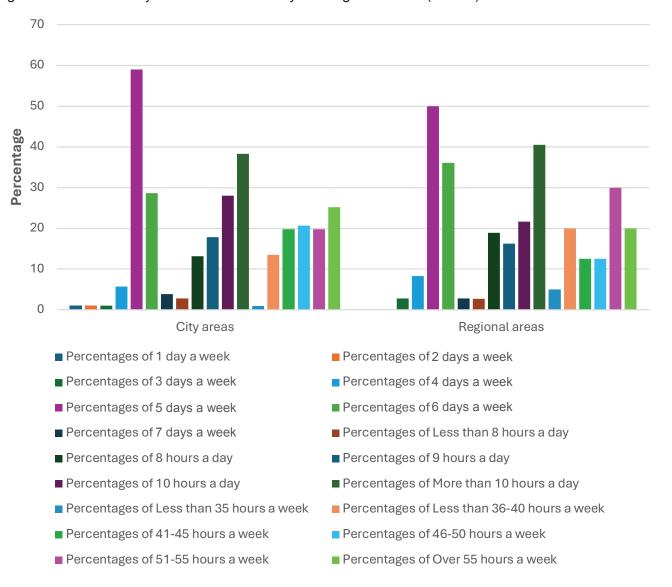


Figure 9: Hours and days worked across different industry sectors (N=167)

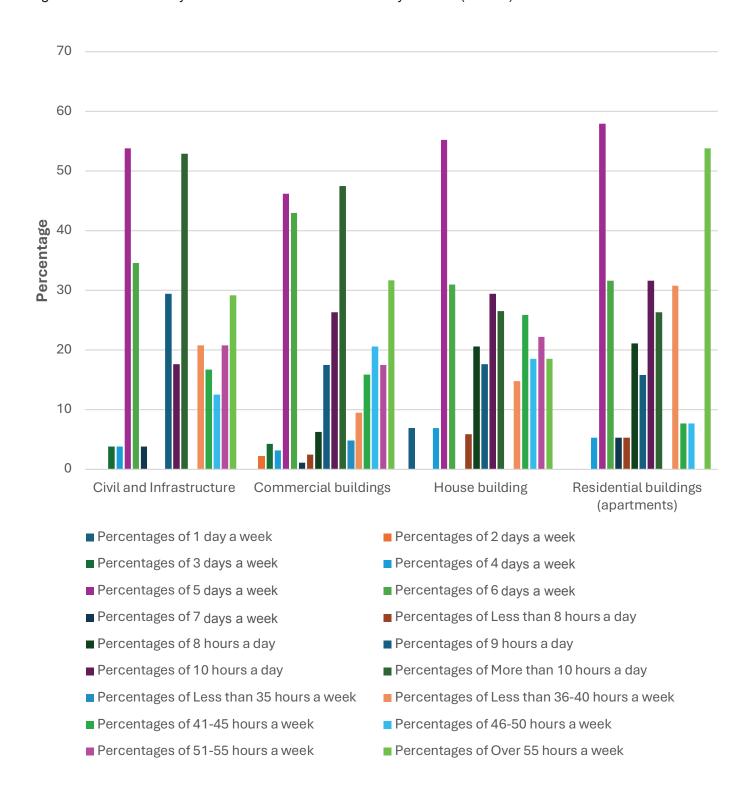


Figure 10: WLB across sample (N=1230)

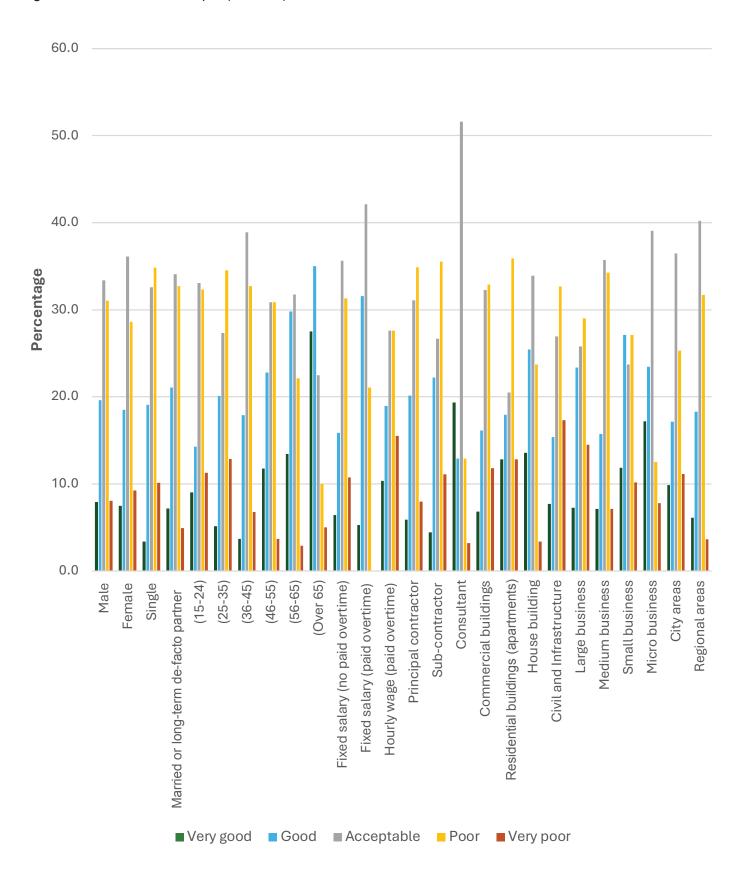
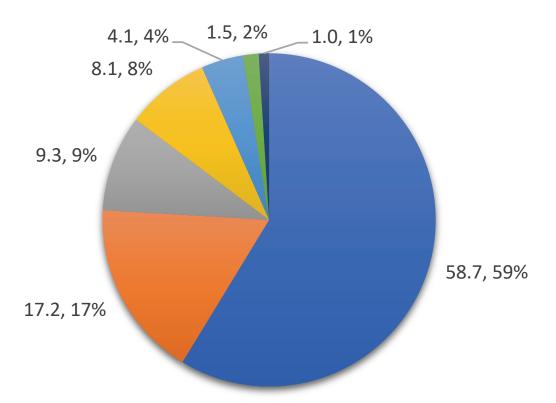


Figure 11: Time spent on work-related and non-work-related activities (N=862)



- Work (including second and third jobs)
- Family (kids and spouse)
- House duties (cleaning, garden etc.)
- Social activities (friends, clubs etc.)
- Study (TAFE, college, university etc.)
- Community work/volunteering/religious commitments
- Caring (for elderly etc.)

Figure 12: Average time spent in work and non-work activities (N= 862)

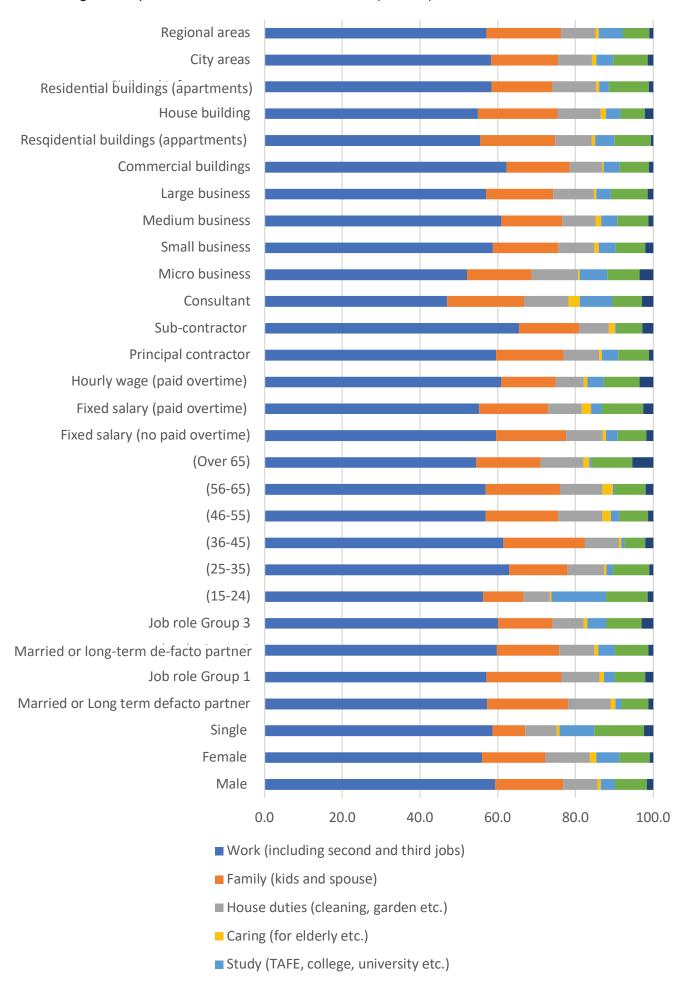


Figure 13: Factors negatively affecting WLB (N=725)

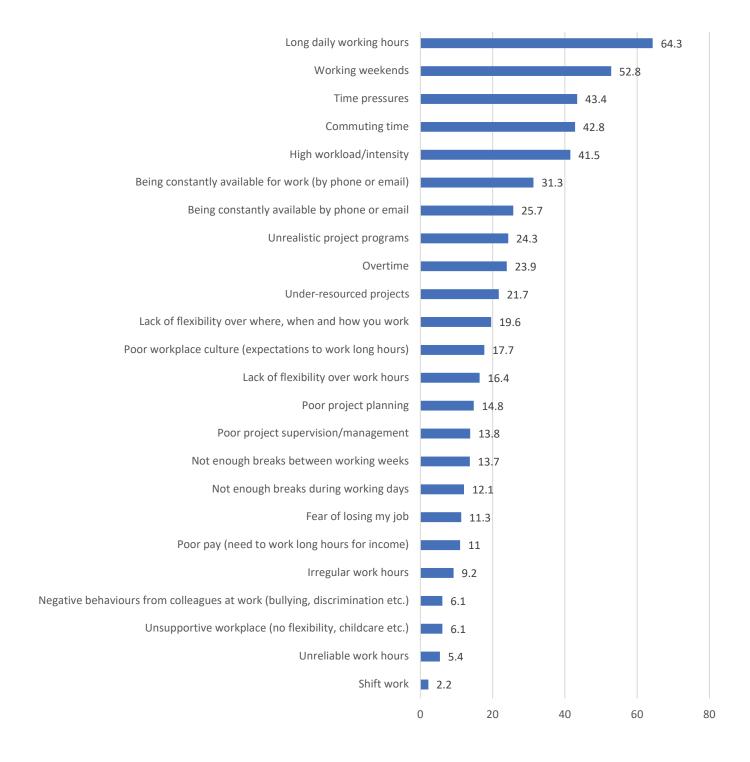


Figure 14: Reasons for working weekends (N=391)

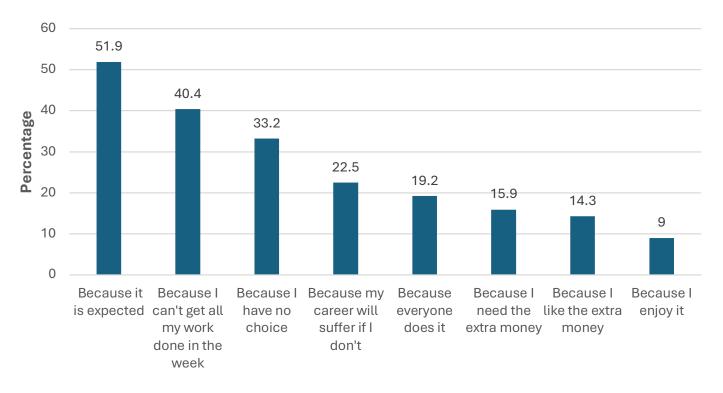


Figure 15: Why work weekends by sector (N=100)

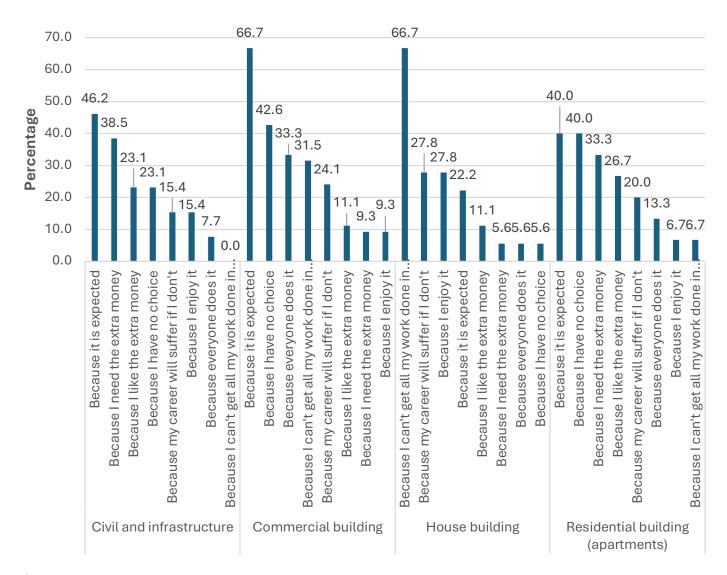


Figure 16: Why work weekends by firm type (N=135)

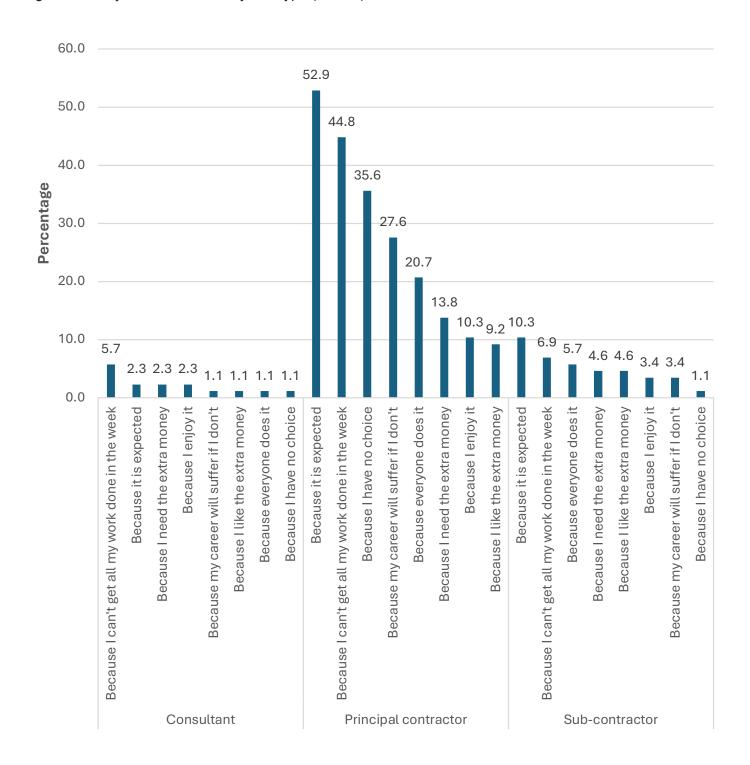


Figure 17: Why work weekends by firm size (N=146)

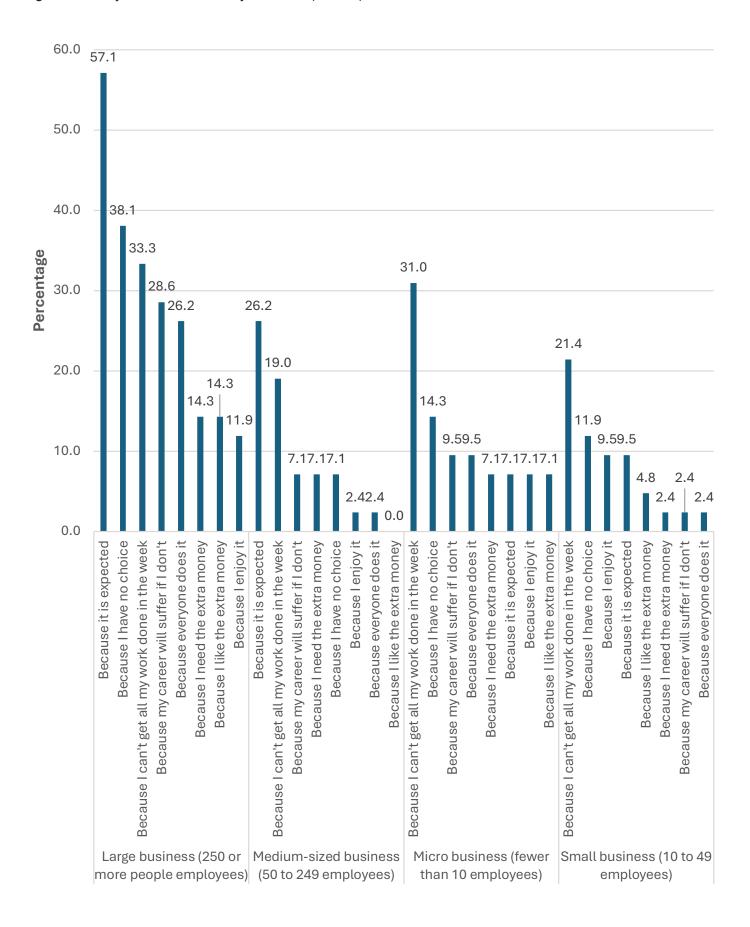


Figure 18: Why work weekends by location (N=142)

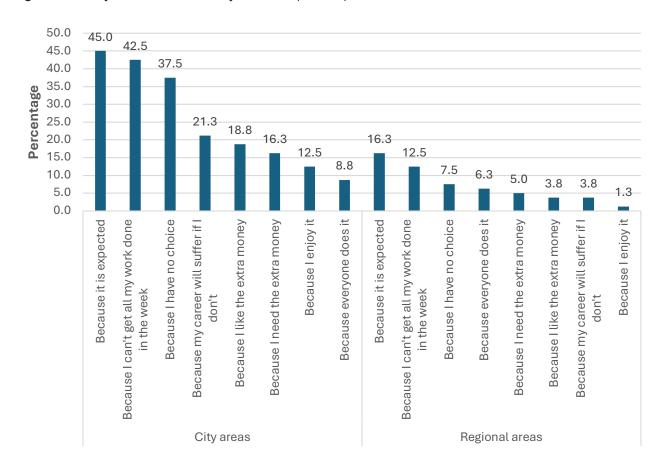


Figure 19: Factors negatively affecting WLB (N=238)

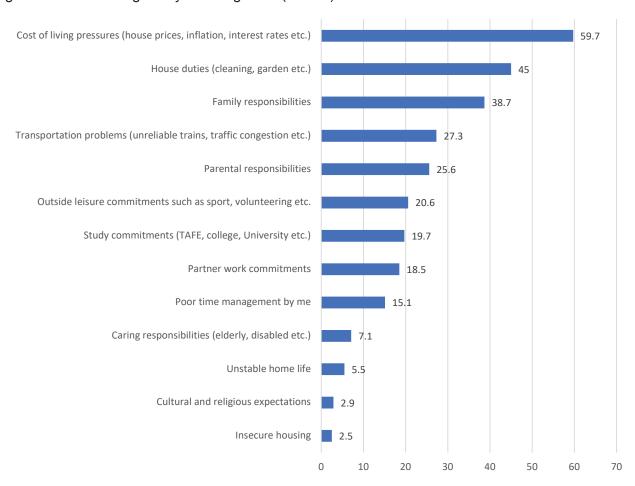


Figure 20: How to improve WLB (N=206)

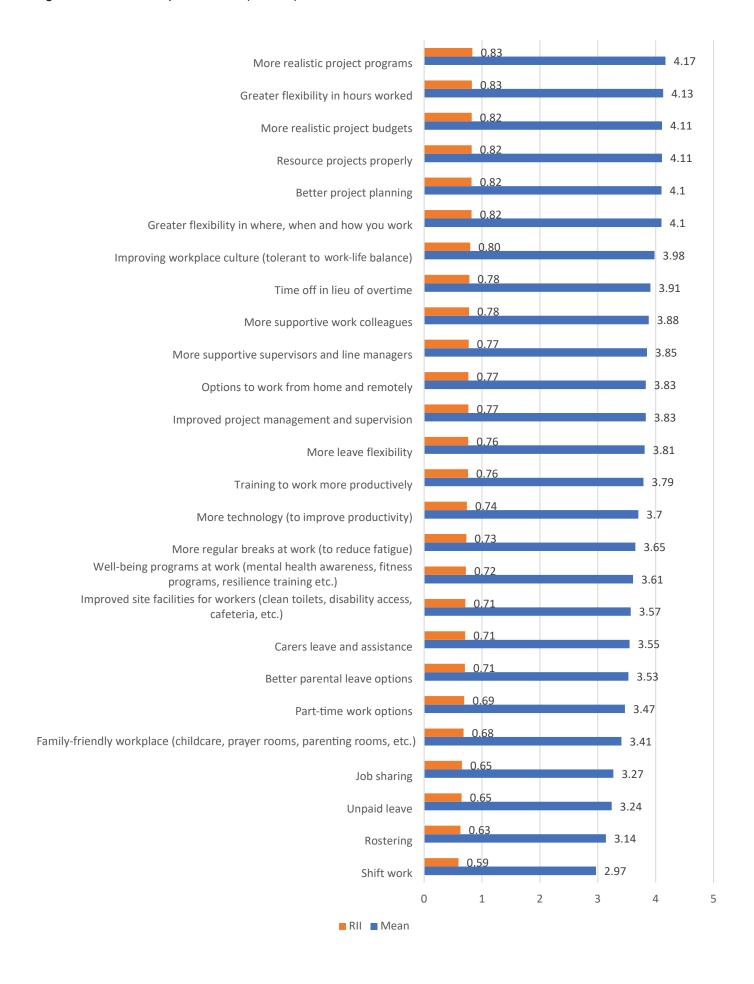


Figure 21: Group 1 WLB (N=343)

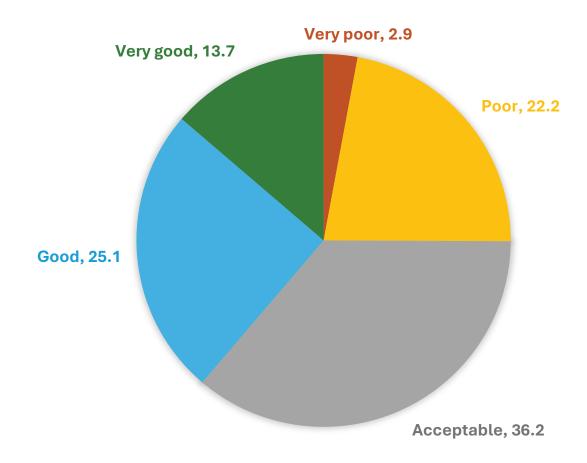


Figure 22: Hours and days worked across all three groups (N=474)

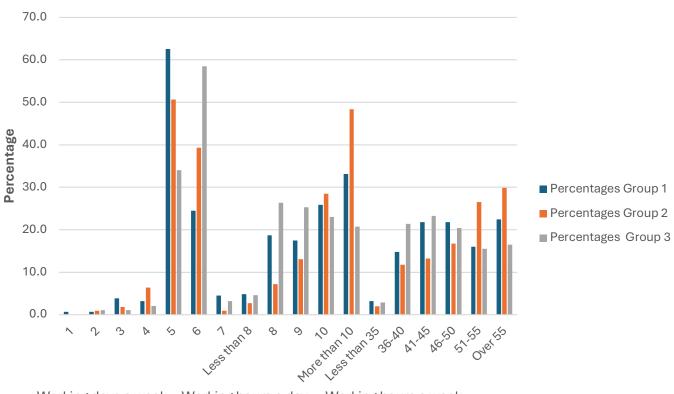


Figure 23: WLB across all three groups (N=1013)

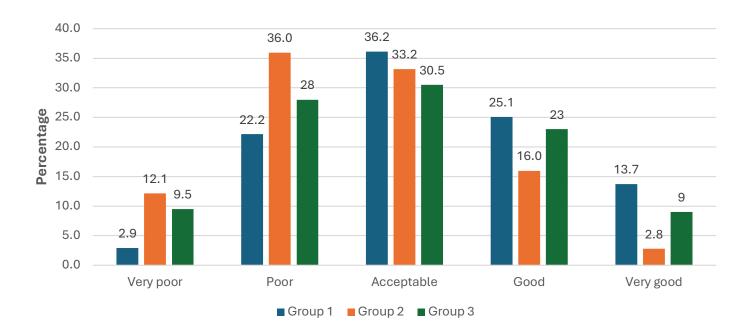


Figure 24: Group 2 self-perceived WLB (N=470)

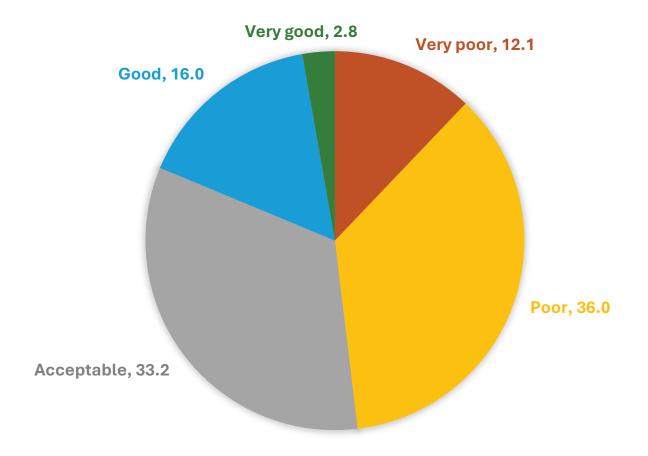


Figure 25: Group 2 commuting hours per week (N=214)

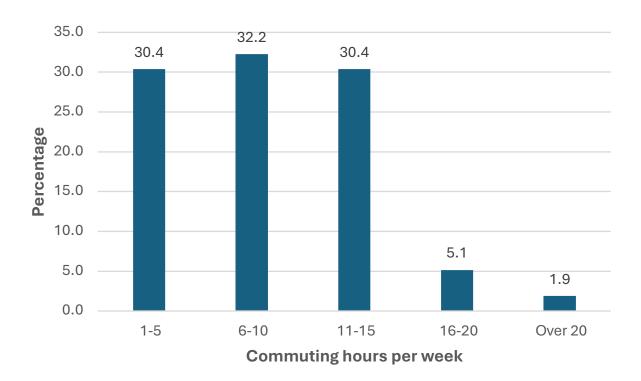


Figure 26: Group 3 self-perceived WLB (N=200)

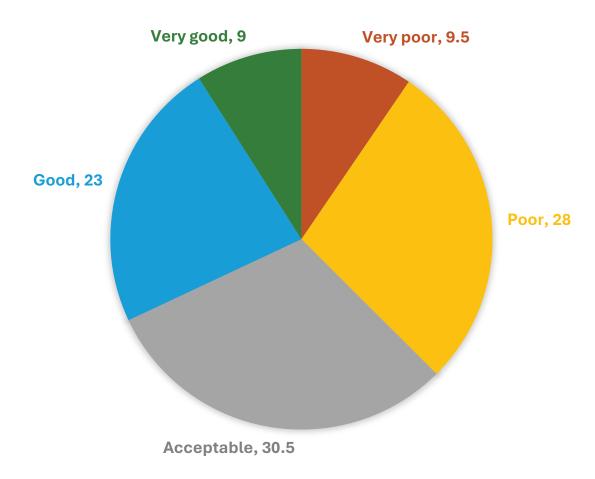


Figure 27: Support for a hard 5-day week (N=568)

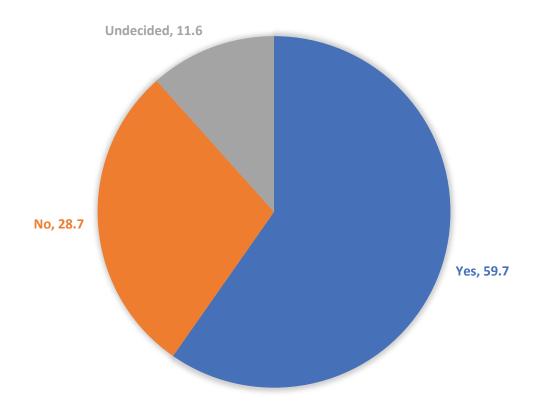


Figure 28: Group preferences for hard and soft 5-day weeks (N=479)

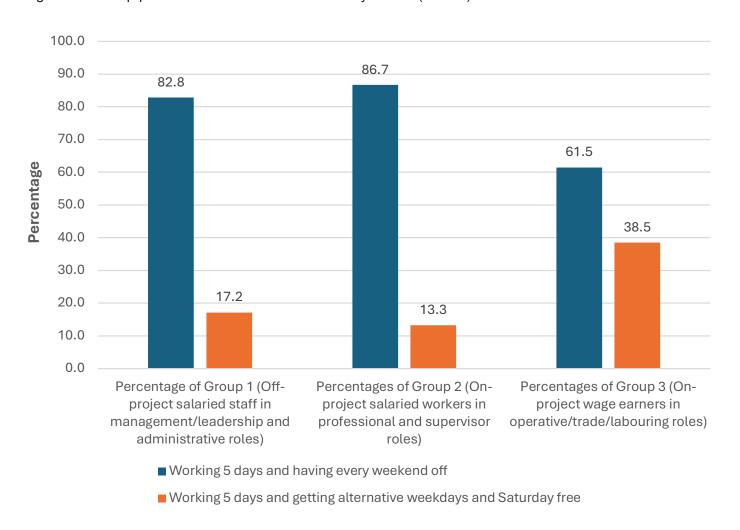
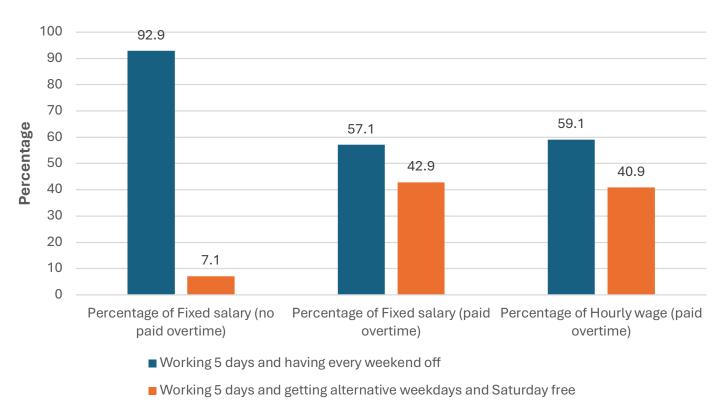


Figure 29: Impacts on WLB for different 5-day week scenarios across sample demographics (N=570)



Figure 30: Preferences for 5-day week scenarios by pay (N=128)



APPENDIX E: TABLES

Table 4: WLB versus working days per week (N=491)

Number of working days per week	Very good	Good	Acceptable	Poor	Very poor
1	0.0	33.3	0.0	66.7	0.0
2	25.0	50.0	25.0	0.0	0.0
3	30.0	40.0	10.0	10.0	10.0
4	3.8	30.8	34.6	26.9	3.8
5	8.2	29.0	40.8	18.8	3.3
6	3.6	10.3	30.4	39.2	16.5
7	11.1	11.1	33.3	22.2	22.2

Table 5: WLB versus working hours per day (N=495)

Number of working hours a day	Very good	Good	Acceptable	Poor	Very poor
Less than 8	25.0	20.0	35.0	20.0	0.0
8	20.6	30.9	36.8	8.8	2.9
9	9.9	27.2	43.2	12.3	7.4
10	4.4	17.6	30.9	41.9	5.1
More than 10	6.3	7.9	26.8	43.7	15.3

Table 6: WLB versus working hours per week (N=506)

Number of working hours per week	Very good	Good	Acceptable	Poor	Very poor
Less than 35	30.8	23.1	38.5	7.7	0.0
36 to 40	9.9	31.0	39.4	19.7	0.0
41 to 45	7.2	27.7	48.2	13.3	3.6
46 to 50	8.2	22.7	38.1	24.7	6.2
51 to 55	7.5	14.0	31.8	37.4	9.3
Over 55	4.4	6.7	25.2	42.2	21.5

Table 7: Days worked a week, hours worked per week and hours worked per day across the sample (N=581)

Demographic	Perc	sentag	(%) sə	Percentages (%) Working day	S	a week		Percentages (%) of working hours	(%) səb	of wo	rking h	ours a	Percent	ages (%) Workir	Percentages (%) Working hours a week	a week	
	1	2	ဇ	4	2	9	7	Less than 8	8	6	10	More than 10	Less than 35	36-40	41-45	46-50	51-55	Over 55
Male	6.0	6.0	1.5	4	47.5	42.6	2.6	3.7	13.1	16.1	28.8	38.3	1.9	12	16.1	19.3	20.6	30.2
Female	0	1.8	7.1	8.8	65.5	16.8	0	7.5	24.5	23.6	17	27.4	5.1	28.6	25.5	16.3	18.4	6.1
Single	0	2.6	2.6	7.7	64.1	20.5	2.6	2.6	33.3	15.4	17.9	30.8	9.8	14.6	24.4	12.2	17.1	22
Married or long-term de-facto partner	0.8	0	2.5	2.5	52.5	40	1.7	6.5	16.3	20.7	25	31.5	-	7.1	20.4	24.5	18.4	28.6
Job role Group 1	9.0	9.0	3.9	3.2	62.6	24.5	4.5	4.82	18.7	17.5	25.9	33.1	3.2	14.7	21.8	21.8	16.0	22.4
Job role Group 2	0	6.0	1.8	6.4	50.7	39.3	6.0	2.7	7.2	13.1	28.5	48.4	2	11.8	13.2	16.7	26.5	29.9
Job role Group 3	0	1.1	1.1	2.1	34	58.5	3.2	4.6	26.4	25.3	23	20.7	2.9	21.4	23.3	20.4	15.5	16.5
(15-24)	0.0	3.3	6.7	20.0	35.0	33.3	1.7	5.2	13.8	13.8	27.6	39.7	3.4	23.7	16.9	16.9	27.1	11.9
(25-35)	0.0	0.0	2.1	3.2	53.7	40.0	1.1	3.2	17.2	18.3	25.8	35.5	1	13.5	16.7	17.7	19.8	31.3
(36-45)	0.0	2.7	1.3	0.0	52.0	42.7	1.3	3.6	14.5	15.7	27.7	38.6	1.5	8.8	29.4	17.6	19.1	23.5
(46-55)	1.6	0.0	0.0	4.7	43.8	50.0	0.0	4.9	8.6	14.8	34.4	36.1	1.7	9.8	13.8	22.4	22.4	31
(26-65)	0.0	0.0	2.2	0.0	6.09	32.6	4.3	8.5	12.8	12.8	34	31.9	4.8	14.3	16.7	28.6	14.3	21.4
(Over 65)	0.0	4.2	0.0	8.3	62.5	16.7	8.3	5.6	38.9	22.2	16.7	16.7	9.1	22.7	18.2	9.1	18.2	22.7
Fixed salary (no paid overtime)	1.0	0.0	1.9	8.9	55.3	32.0	2.9	4.3	12.8	11.1	32.5	39.3	-	14.7	15.7	14.7	25.5	28.4
Fixed salary (paid overtime)	0.0	12.5	0.0	12.5	37.5	37.5	0.0	0	20	20	30	30	0	33.3	11.1	11.1	33.3	11.1
Hourly wage (paid overtime)	0.0	0.0	3.2	9.7	29.0	58.1	0.0	11.5	30.8	19.2	11.5	26.9	3.4	10.3	24.1	20.7	20.7	20.7
Principal contractor	0.0	0.8	2.4	8.1	54.8	31.5	2.4	4.6	13.8	14.7	28.4	38.5	1.8	14.2	17.7	14.2	23.9	28.3
Sub-contractor	0.0	0.0	4.8	0.0	42.9	52.4	0.0	8.3	16.7	25	25	25	20	26.9	12	29.6	9.4	13.5
Consultant	0.0	0.0	0.0	0.0	72.7	27.3	0.0	7.7	38.5	7.7	15.4	30.8	16.7	25	16.7	25	16.7	0
Micro business (fewer than 10 employees)	0.0	7.4	3.7	0:0	48.1	37.0	3.7	7.7	26.9	15.4	11.5	38.5	2.7	24.3	32.4	10.8	13.5	16.2
Small business (10 to 49 employees)	0.0	0.0	11.1	3.7	48.1	33.3	3.7	0	21.2	24.2	27.3	27.3	3.7	14.8	22.2	22.2	14.8	22.2
Medium business (50 to 249 employees)	0.0	2.9	0.0	5.9	61.8	23.5	5.9	0	6.5	22.6	32.3	38.7	0	23.8	16.7	9.5	16.7	33.3
Large business (250 or more people employees)	0.0	1.9	1.9	13.2	41.5	41.5	0.0	1.8	10.7	16.1	21.4	50	0	8.6	5.2	20.7	31	34.5
Commercial buildings	0.0	2.2	4.3	3.2	46.2	43.0	1.1	2.5	6.3	17.5	26.3	47.5	4.8	9.5	15.9	20.6	17.5	31.7
Residential buildings (apartments)	0.0	0.0	0.0	5.3	67.9	31.6	5.3	5.3	21.1	15.8	31.6	26.3	0	30.8	7.7	7.7	0	53.8
House building	6.9	0.0	0.0	6.9	55.2	31.0	0.0	5.9	20.6	17.6	29.4	26.5	0	14.8	25.9	18.5	22.2	18.5
Civil and Infrastructure	0.0	0.0	3.8	3.8	53.8	34.6	3.8	0	0	29.4	17.6	52.9	0	20.8	16.7	12.5	20.8	29.2

Table 8: WLB across sample (N=1230)

Demographic	Very good	Good	Acceptable	Poor	Very poor
Male	7.9	19.6	33.4	31.1	8.0
Female	7.5	18.5	36.1	28.6	9.3
Single	3.4	19.1	32.6	34.8	10.1
Married or de facto partner	7.2	21.1	34.1	32.7	4.9
(15-24)	9.0	14.3	33.1	32.3	11.3
(25-35)	5.2	20.1	27.3	34.5	12.9
(36-45)	3.7	17.9	38.9	32.7	6.8
(46-55)	11.8	22.8	30.9	30.9	3.7
(56-65)	13.5	29.8	31.7	22.1	2.9
(Over 65)	27.5	35.0	22.5	10.0	5.0
Fixed salary (no paid overtime)	6.4	15.9	35.6	31.3	10.7
Fixed salary (paid overtime)	5.3	31.6	42.1	21.1	0.0
Hourly wage (paid overtime)	10.3	19.0	27.6	27.6	15.5
Principal contractor	5.9	20.2	31.1	34.9	8.0
Sub-contractor	4.4	22.2	26.7	35.6	11.1
Consultant	19.4	12.9	51.6	12.9	3.2
Micro business	17.2	23.4	39.1	12.5	7.8
Small business	11.9	27.1	23.7	27.1	10.2
Medium business	7.1	15.7	35.7	34.3	7.1
Large business	7.3	23.4	25.8	29.0	14.5
Commercial buildings	6.8	16.1	32.3	32.9	11.8
Residential buildings (apartments)	12.8	17.9	20.5	35.9	12.8
House building	13.6	25.4	33.9	23.7	3.4
Civil and Infrastructure	7.7	15.4	26.9	32.7	17.3
City areas	9.9	17.2	36.5	25.3	11.2
Regional areas	6.1	18.3	40.2	31.7	3.7

Table 9: Average time spent in work and non-work activities (N=862)

Demographic	Percentage	s of average	time in a ty	pical spent	in work and i	non-work acti	vities
	Work (including second and third jobs)	Family (kids and spouse)	House duties (cleaning, garden etc.)	Caring (for elderly etc.)	Study (TAFE, college, university etc.)	Social activities (friends, clubs etc.)	Community work/ volunteering/ religious commitments
Male	59.3	17.5	8.8	0.8	3.6	8.2	1.6
Female	55.9	16.4	11.5	1.6	6.0	7.8	0.9
Single	58.7	8.4	8.1	0.8	8.9	12.8	2.4
Married or de facto	57.3	20.8	10.9	1.2	1.6	7.0	1.2
Job role Group 1	57.1	19.3	9.9	1.1	2.6	8.0	2.0
Job role Group 2	59.8	16.0	9.0	1.1	4.2	8.7	1.2
Job role Group 3	60.1	14.0	8.0	1.0	4.8	9.0	3.0
(15-24)	56.3	10.4	6.7	0.4	14.1	10.7	1.4
(25-35)	62.9	15.2	9.3	0.6	1.6	9.4	1.0
(36-45)	61.4	21.1	8.7	0.6	0.8	5.3	2.1
(46-55)	56.8	18.7	11.4	2.2	2.2	7.4	1.3
(56-65)	56.9	19.2	10.9	2.7	0.4	8.0	2.0
(Over 65)	54.5	16.5	11.0	1.6	0.7	10.3	5.4
Fixed salary (no paid overtime)	59.6	18.0	9.5	0.9	3.0	7.4	1.7
Fixed salary (paid overtime)	55.3	17.8	8.6	2.4	2.9	10.6	2.6
Hourly wage (paid overtime)	60.9	13.9	7.3	0.9	4.2	9.3	3.5
Principal contractor	59.6	17.3	9.1	0.8	4.1	7.9	1.1
Sub-contractor	65.6	15.4	7.6	1.7	0.4	6.6	2.7
Consultant	47.0	19.8	11.4	3.0	8.4	7.5	2.9
Micro business (fewer than 10 employees)	52.1	16.7	11.9	0.5	7.0	8.3	3.5
Small business (10 to 49 employees)	58.8	16.8	9.3	1.1	4.4	7.6	2.0
Medium business (50 to 249 employees)	60.9	15.8	8.6	1.5	4.1	8.0	1.2
Large business (250 or more people employees)	57.0	17.2	10.5	0.7	3.7	9.5	1.4
Commercial buildings	62.2	16.3	8.3	0.5	4.1	7.5	1.1
Residential buildings (apartments)	55.5	19.2	9.4	1.0	4.9	9.5	0.6
House building	54.9	20.5	11.1	1.3	3.8	6.2	2.2
Civil and Infrastructure	58.5	15.7	11.1	0.8	2.5	10.3	1.1
City areas	58.3	17.2	8.6	1.2	4.3	8.9	1.4
Regional areas	57.1	19.2	8.9	0.8	6.2	6.8	1.0

Table 10: Mean and RII of WLB effect on life across sex, age, and marital status (Scale 1 very negative to 5 very positive) (N=860)

	All	ndents	Male		Femal	e	Single		Married long-te de-fact partne	erm to	Age gr (15-24		Age gr (25-35		Age gr (36-45		Age gr (46-55		Age gr (56-65		Age gr (Over	
	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII
Attention to safety	3.4	0.68	3.5	0.70	2.9	0.59	2.6	0.52	2.5	0.51	3.0	0.60	3.2	0.63	3.4	0.68	3.6	0.72	3.6	0.73	4.6	0.92
Work relationships	3.4	0.68	3.4	0.68	3.4	0.67	3.0	0.60	3.4	0.68	3.4	0.67	3.2	0.63	3.4	0.68	3.5	0.71	3.4	0.67	4.4	0.88
Attention to quality	3.3	0.67	3.5	0.69	2.7	0.55	3.2	0.64	3.4	0.68	3.0	0.60	3.2	0.65	3.6	0.72	3.5	0.70	3.6	0.72	4.2	0.84
Job performance	3.3	0.65	3.3	0.66	3.0	0.60	3.3	0.66	3.5	0.69	3.2	0.63	3.1	0.62	3.4	0.67	3.3	0.65	3.7	0.74	4.4	0.88
Job commitment	3.2	0.64	3.2	0.65	3.2	0.64	3.2	0.64	3.4	0.67	3.2	0.64	3.1	0.62	3.1	0.61	3.4	0.68	3.3	0.65	4.4	0.88
Accident proneness	3.1	0.63	3.2	0.64	2.9	0.58	3.2	0.64	3.3	0.66	3.0	0.60	3.1	0.62	3.2	0.64	3.2	0.64	3.3	0.65	3.4	0.68
Job productivity	3.1	0.62	3.2	0.63	2.8	0.57	2.9	0.58	3.3	0.66	2.9	0.59	3.1	0.61	3.2	0.64	3.0	0.61	3.5	0.71	4.2	0.84
Job satisfaction	3.1	0.62	3.1	0.63	2.9	0.57	3.1	0.62	3.3	0.66	3.1	0.61	2.7	0.54	3.0	0.59	3.2	0.63	3.3	0.66	4.6	0.92
Smoking Absenteeism	3.1	0.61	3.1	0.62	2.9	0.57	3.1	0.62	3.2	0.63	3.1	0.62	3.0	0.58	3.0	0.60	3.0	0.60	3.2	0.64	3.0	0.60
from work Doctor visits	2.9	0.59	3.0	0.59	2.8	0.56	2.7	0.54	3.0	0.61	2.8	0.57	3.0	0.61	2.9	0.58	3.1	0.62	3.1	0.61	3.4	0.68
Wanting to quit the construction industry	2.9	0.58	2.9	0.58	2.9	0.57	3.1	0.62	2.9	0.58	2.7	0.54	2.8	0.57	2.8	0.55	3.1	0.63	2.9	0.59	3.6	0.72
Alcohol consumption	2.9	0.57	2.9	0.58	2.7	0.55	3.2	0.64	2.8	0.56	2.9	0.59	2.7	0.54	3.1	0.62	2.8	0.57	3.1	0.62	3.2	0.64
Wanting to quit my job	2.9	0.57	2.9	0.57	2.7	0.55	2.7	0.54	2.9	0.57	2.7	0.55	2.7	0.53	3.0	0.59	2.8	0.57	3.1	0.62	3.4	0.68
Attendance at important family events	2.9	0.57	2.9	0.57	2.8	0.56	2.5	0.50	2.8	0.56	3.0	0.60	2.7	0.55	2.9	0.58	2.8	0.56	3.1	0.61	4.0	0.80
Plans to start a family	2.9	0.57	2.9	0.58	2.7	0.53	2.1	0.42	3.0	0.61	2.9	0.59	2.5	0.51	3.2	0.64	3.0	0.60	3.1	0.62	3.0	0.60
Spouse career choices	2.8	0.56	2.8	0.57	2.7	0.55	2.9	0.58	2.8	0.56	2.7	0.55	2.7	0.55	2.8	0.56	3.0	0.59	3.1	0.62	2.8	0.56
Friendships Financial costs	2.8	0.56	2.9	0.57	2.6	0.51	2.7	0.54	2.9	0.57	2.7 3.0	0.55	2.7	0.54	2.9	0.57	3.2	0.63	2.9	0.58	4.0 3.4	0.80
(like childcare) Family	2.8	0.56	2.8	0.57	2.6	0.51	2.5	0.50	2.8	0.56	2.8	0.56	2.7	0.55	2.8	0.56	3.0	0.59	2.9	0.58	4.0	0.80
relationships Life satisfaction in	2.8	0.56	2.8	0.56	2.7	0.54	2.4	0.48	3.0	0.59	2.7	0.54	2.6	0.51	3.0	0.59	3.0	0.61	3.1	0.61	4.0	0.80
general My general	2.8	0.55	2.8	0.56	2.7	0.54	2.3	0.46	2.8	0.55	2.9	0.58	2.6	0.52	2.7	0.54	2.8	0.56	3.0	0.60	3.6	0.72
Spouse/roma ntic relationships	2.7	0.54	2.7	0.54	2.7	0.53	2.3	0.46	2.8	0.56	2.8	0.56	2.5	0.50	2.7	0.54	2.8	0.56	3.0	0.60	4.0	0.80
Physical health/fitness	2.6	0.53	2.7	0.53	2.5	0.51	2.8	0.56	2.6	0.52	2.8	0.57	2.7	0.54	2.8	0.55	3.0	0.60	2.9	0.58	3.2	0.64
Mental health	2.6	0.53	2.7	0.53	2.6	0.51	2.7	0.54	2.7	0.54	2.7	0.55	2.5	0.50	2.8	0.56	2.8	0.57	3.0	0.60	3.4	0.68
Stress at home	2.6	0.52	2.6	0.52	2.5	0.49	2.5	0.50	2.6	0.53	2.6	0.53	2.3	0.45	2.7	0.54	2.8	0.57	2.9	0.58	2.8	0.56
Diet Exercise and	2.5	0.51	2.6	0.52 0.51	2.3	0.45	2.5	0.50	2.5	0.49	2.6	0.53 0.55	2.3	0.47	2.4	0.48	2.9	0.58 0.54	2.9	0.59	3.2	0.64
leisure time		0.50		0.51	2.4	0.48	2.4	0.54				0.33	2.3	0.47					2.9			0.64
Stress in work Sleep	2.5	0.50	2.5	0.51	2.3	0.47	2.7	0.54	2.6	0.51	2.5	0.49	2.3	0.47	2.5	0.50	2.6	0.52	2.9	0.58	3.2	0.64
Fatigue	2.4	0.48	2.4	0.48	2.2	0.44	2.6	0.52	2.4	0.48	2.3	0.45	2.2	0.44	2.5	0.50	2.5	0.49	2.8	0.56	3.4	0.68
Never being able to fully relax	2.4	0.47	2.4	0.48	2.3	0.46	2.5	0.50	2.2	0.44-	2.4	0.47	2.2	0.43	2.2	0.44	2.3	0.47	2.8	0.57	2.6	0.52

Table 11: Mean and RII of WLB effect on life across job role group and job paid (Scale 1 very negative to 5 very positive) (N=860)

	A 11		I-l-		I a la	1-	Lala	1-	Fixed	,	Fixed	,		
	All respond		Job i Grou		Job i Grou		Job Grou		(no ¡ overt		(pa overt			y wage vertime)
	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII
Attention to safety	3.4	0.68	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII
Work relationships	3.4	0.68	3.6	0.71	3.2	0.64	3.4	0.69	3.5	0.70	3.7	0.73	3.3	0.66
Attention to quality	3.3	0.67	3.4	0.69	3.3	0.65	3.3	0.66	3.3	0.66	3.7	0.73	3.0	0.60
Job performance	3.3	0.65	3.4	0.67	3.2	0.63	3.5	0.70	3.2	0.64	3.7	0.73	3.7	0.74
Job commitment	3.2	0.64	3.3	0.67	3.0	0.60	3.5	0.70	3.1	0.63	3.3	0.67	3.5	0.70
Accident proneness	3.1	0.63	3.3	0.66	2.9	0.59	3.4	0.68	3.1	0.62	3.3	0.67	3.5	0.70
Job productivity	3.1	0.62	3.3	0.65	3.0	0.59	3.0	0.61	3.0	0.61	3.2	0.63	3.3	0.66
Job satisfaction	3.1	0.62	3.2	0.64	2.8	0.57	3.4	0.68	3.0	0.59	3.2	0.63	3.3	0.66
Smoking	3.1	0.61	3.2	0.64	2.8	0.57	3.1	0.63	3.1	0.62	3.0	0.60	3.1	0.62
Absenteeism from work	3.0	0.61	3.2	0.64	2.9	0.58	3.1	0.61	3.0	0.60	3.2	0.63	3.4	0.68
Doctor visits	2.9	0.59	3.1	0.63	2.9	0.57	3.1	0.63	3.0	0.60	3.2	0.63	3.0	0.60
Wanting to quit the	2.9	0.58	3.2	0.64	2.9	0.57	2.8	0.56	2.8	0.56	3.2	0.63	2.9	0.58
construction industry	2.9	0.57	3.0	0.60	2.6	0.52	3.1	0.61	3.1	0.62	2.5	0.50	3.1	0.62
Alcohol consumption	2.9	0.57	2.9	0.60	2.8	0.52	2.9	0.51	2.9	0.62	2.5	0.50	2.9	0.62
Wanting to quit my job Attendance at important	2.9	0.57	3.0	0.58	2.6	0.50	2.9	0.59	3.0	0.58	2.5	0.50	3.0	0.60
family events	2.9	0.57	3.0	0.60	2.0	0.52	2.8	0.56	3.0	0.59	2.5	0.50	3.0	0.60
Plans to start a family	2.9	0.57	3.0	0.60	2.7	0.55	2.8	0.56	2.8	0.56	3.2	0.63	3.2	0.64
Spouse career choices	2.8	0.56	3.1	0.62	2.6	0.53	2.8	0.55	2.9	0.58	2.7	0.53	2.9	0.58
Friendships	2.8	0.56	2.9	0.58	2.6	0.53	2.7	0.54	2.7	0.54	3.0	0.60	2.8	0.56
Financial costs (like childcare)	2.8	0.56	2.9	0.58	2.6	0.52	3.0	0.61	2.6	0.51	3.0	0.60	3.0	0.60
Family relationships	2.8	0.56	2.9	0.59	2.7	0.54	2.7	0.54	2.8	0.56	2.7	0.53	2.3	0.46
Life satisfaction in general	2.8	0.56	2.9	0.58	2.6	0.52	3.0	0.61	2.6	0.52	2.8	0.57	3.3	0.66
My general mood	2.8	0.55	3.0	0.60	2.5	0.50	2.8	0.57	2.7	0.54	2.8	0.57	3.1	0.62
Spouse/romantic relationships	2.7	0.54	2.9	0.58	2.6	0.51	2.8	0.55	2.5	0.51	2.8	0.57	3.1	0.62
Physical health/fitness	2.6	0.53	3.0	0.59	2.5	0.50	2.8	0.55	2.6	0.53	2.7	0.53	3.2	0.64
Mental health	2.6	0.53	2.8	0.56	2.3	0.47	3.0	0.59	2.5	0.51	3.0	0.60	2.8	0.56
Stress at home	2.6	0.52	2.9	0.58	2.4	0.48	2.8	0.56	2.5	0.49	2.8	0.57	3.1	0.62
Diet	2.5	0.51	2.8	0.55	2.4	0.47	2.5	0.49	2.5	0.51	2.8	0.57	2.8	0.56
Exercise and leisure time	2.5	0.50	2.6	0.51	2.4	0.48	2.6	0.53	2.4	0.48	2.5	0.50	2.8	0.56
Stress in work	2.5	0.50	2.7	0.54	2.3	0.46	2.7	0.53	2.3	0.45	3.0	0.60	3.0	0.60
Sleep	2.4	0.48	2.5	0.50	2.4	0.47	2.7	0.54	2.3	0.47	2.8	0.57	3.1	0.62
Fatigue	2.4	0.48	2.6	0.51	2.3	0.45	2.3	0.46	2.3	0.47	2.5	0.50	2.6	0.52
Never being able to fully	2.4	0.47	2.6	0.51	2.2	0.43	2.5	0.49	2.3	0.46	2.7	0.53	2.7	0.54
relax														

Table 12: Mean and RII of WLB effect on life across firm type and firm size (Scale 1 very negative to 5 very positive) (N=860)

	All resp	ondents	Principal contract		Sub-con	tractor	Consult	ant	Micro	SS	Small	SS	Medium business		Large busines	S
	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII
Attention to safety	3.4	0.68	3.3	0.66	3.5	0.70	4.0	0.80	3.7	0.74	3.5	0.69	3.5	0.70	3.3	0.67
Work relationships	3.4	0.68	3.5	0.69	3.5	0.70	3.8	0.75	3.3	0.66	3.3	0.67	3.4	0.67	3.4	0.69
Attention to quality	3.3	0.67	3.3	0.66	3.5	0.70	4.0	0.80	3.5	0.71	3.1	0.63	3.4	0.67	3.1	0.63
Job performance	3.3	0.65	3.4	0.69	3.5	0.70	3.8	0.75	3.1	0.62	3.3	0.67	3.6	0.73	3.2	0.64
Job commitment	3.2	0.64	3.3	0.66	3.2	0.63	4.0	0.80	3.1	0.61	3.5	0.69	3.4	0.69	3.4	0.68
Accident	3.1	0.63	3.2	0.64	3.3	0.67	3.8	0.75	2.9	0.59	3.0	0.60	3.3	0.66	3.2	0.64
proneness																
Job productivity	3.1	0.62	3.4	0.67	3.3	0.67	3.8	0.75	3.0	0.60	3.3	0.65	3.4	0.69	3.2	0.65
Job satisfaction	3.1	0.62	3.2	0.65	2.8	0.57	3.8	0.75	2.9	0.59	3.1	0.63	3.3	0.66	3.1	0.63
Smoking	3.1	0.61	3.1	0.62	3.2	0.63	2.8	0.55	2.8	0.56	3.2	0.64	3.1	0.63	2.8	0.56
Absenteeism from	3.0	0.61	3.2	0.65	3.5	0.70	3.3	0.65	2.8	0.55	3.1	0.61	3.1	0.63	3.0	0.61
work																
Doctor visits	2.9	0.59	3.1	0.61	3.2	0.63	2.8	0.55	2.8	0.55	2.9	0.57	3.2	0.64	2.8	0.55
Wanting to quit the	2.9	0.58	3.0	0.60	2.7	0.53	3.0	0.60	2.7	0.54	2.9	0.59	3.2	0.64	3.2	0.64
construction																
industry																
Alcohol	2.9	0.57	3.0	0.60	2.7	0.53	3.0	0.60	2.9	0.59	3.3	0.67	3.1	0.61	2.8	0.55
consumption																
Wanting to quit my	2.9	0.57	2.8	0.56	2.8	0.57	3.3	0.65	2.6	0.52	3.0	0.60	3.4	0.67	3.2	0.64
job	2.0	0.57	2.0	0.50	2.2	0.60	2.0	0.75	2.6	0.50	2.0	0.60	2.0	0.50	2.0	0.55
Attendance at	2.9	0.57	3.0	0.59	3.2	0.63	3.8	0.75	2.6	0.53	3.0	0.60	2.9	0.59	2.8	0.55
important family events																
Plans to start a	2.9	0.57	2.8	0.56	2.7	0.53	3.3	0.65	2.8	0.55	3.0	0.60	3.0	0.60	2.8	0.55
family	2.3	0.57	2.0	0.50	2.7	0.55	5.5	0.03	2.0	0.55	3.0	0.00	3.0	0.00	2.0	0.55
Spouse career	2.8	0.56	3.0	0.59	2.7	0.53	3.5	0.70	2.8	0.55	2.9	0.57	2.9	0.59	2.9	0.57
choices																
Friendships	2.8	0.56	3.0	0.61	3.0	0.60	3.5	0.70	2.9	0.58	2.9	0.59	2.9	0.57	2.6	0.51
Financial costs (like	2.8	0.56	3.0	0.59	2.5	0.50	2.8	0.55	2.5	0.49	3.0	0.60	2.7	0.54	2.7	0.54
childcare)																
Family	2.8	0.56	3.0	0.59	2.7	0.53	4.0	0.80	2.8	0.55	2.9	0.59	2.8	0.56	2.6	0.52
relationships																
Life satisfaction in	2.8	0.56	2.9	0.58	2.5	0.50	3.5	0.70	2.6	0.52	2.8	0.56	3.0	0.60	2.7	0.53
general																
My general mood	2.8	0.55	2.9	0.57	2.5	0.50	4.0	0.80	2.6	0.52	2.9	0.57	3.1	0.63	2.6	0.52
Spouse/romantic	2.7	0.54	2.9	0.58	2.7	0.53	3.5	0.70	2.6	0.53	2.7	0.55	3.0	0.60	2.5	0.50
relationships	2.0	0.53	2.0	0.53	1.0	0.27	2.5	0.70	2.6	0.53	2.7	0.53	2.0	0.50	2.0	0.50
Physical health/fitness	2.6	0.53	2.6	0.52	1.8	0.37	3.5	0.70	2.6	0.53	2.7	0.53	2.8	0.56	2.9	0.58
Mental health	2.6	0.53	2.6	0.52	2.5	0.50	3.8	0.75	2.5	0.51	2.7	0.55	3.1	0.61	2.6	0.51
	2.6	0.52	2.6	0.52	2.2	0.43	3.5	0.70	2.6	0.51	2.3	0.47	2.9	0.59	2.7	0.51
Stress at home	2.5	0.52	2.5	0.49	2.2	0.43	3.8	0.75	2.7	0.54	2.4	0.48	2.5	0.50	2.6	0.51
Diet Exercise and	2.5	0.51	2.5	0.49	2.2	0.40	3.8	0.75	2.7	0.34	2.4	0.48	2.5	0.50	2.4	0.31
leisure time	2.3	0.50	2.3	0.49	2.0	0.40	3.0	0.73	2.3	0.43	2.3	0.51	2.5	0.50	2.4	0.40
Stress in work	2.5	0.50	2.6	0.51	2.3	0.47	2.8	0.55	2.4	0.47	2.3	0.45	2.9	0.57	2.8	0.56
Sleep	2.4	0.48	2.4	0.48	2.3	0.47	3.5	0.70	2.5	0.51	2.3	0.43	2.4	0.49	2.3	0.47
•	2.4	0.48	2.4	0.48	2.3	0.47	3.0	0.60	2.3	0.46	2.3	0.47	2.4	0.49	2.5	0.50
Fatigue Never being able to	2.4	0.48	2.4	0.46	2.2	0.47	3.5	0.70	2.3	0.48	2.3	0.47	2.29	0.30	2.2	0.30
fully relax	2.4	0.47	2.3	0.46	2.2	0.45	3.3	0.70	2.4	0.48	2.3	0.47	2.29	0.40	2.2	0.44
runy i ciax	1	1		l	1	l	l		1	L		L	1	1	1	L

Table 13: Mean and RII of WLB effect on life across sector type and working areas (Scale 1 very negative to 5 very positive) (N=860)

					Resid	dential								
			Comm	ercial		dings	Ноц	ıse	Civil	and			Regi	onal
	All resp	ondents	build			ments)	build			ructure	City a	ireas	are	
	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII	Mean	RII
Attention to safety	3.4	0.68	3.2	0.65	3.5	0.70	3.5	0.69	3.3	0.65	3.4	0.67	3.1	0.62
Work relationships	3.4	0.68	3.6	0.71	3.3	0.65	3.7	0.74	3.1	0.62	3.3	0.66	3.2	0.64
Attention to quality	3.3	0.67	3.1	0.62	3.5	0.70	3.8	0.75	3.1	0.62	3.2	0.65	3.5	0.69
Job performance	3.3	0.65	3.1	0.63	3.3	0.65	3.6	0.72	2.6	0.53	3.0	0.61	3.1	0.62
Job commitment	3.2	0.64	3.2	0.65	3.3	0.65	3.5	0.71	2.6	0.53	3.0	0.61	3.1	0.62
Accident proneness	3.1	0.63	3.1	0.61	2.3	0.45	3.2	0.65	2.7	0.55	3.0	0.60	3.1	0.62
Job productivity	3.1	0.62	2.9	0.58	3.0	0.60	3.5	0.71	2.7	0.55	2.9	0.58	2.9	0.58
Job satisfaction	3.1	0.62	3.0	0.60	3.3	0.65	3.7	0.74	2.7	0.55	2.9	0.58	3.0	0.60
Smoking	3.1	0.61	3.0	0.61	2.8	0.55	3.2	0.65	3.1	0.62	3.2	0.63	3.0	0.60
Absenteeism from work	3.0	0.61	3.0	0.60	2.3	0.45	2.8	0.55	3.0	0.60	3.0	0.60	2.8	0.56
Doctor visits	2.9	0.59	3.0	0.61	2.8	0.55	2.8	0.57	2.8	0.56	2.9	0.58	2.8	0.56
Wanting to quit the	2.9	0.58	2.7	0.55	2.3	0.45	2.8	0.55	2.8	0.56	3.0	0.61	3.0	0.60
construction industry														
Alcohol consumption	2.9	0.57	2.8	0.56	2.8	0.55	3.3	0.66	2.5	0.49	2.9	0.58	2.7	0.55
Wanting to quit my job	2.9	0.57	2.9	0.58	2.5	0.50	2.9	0.58	2.7	0.55	2.9	0.57	2.7	0.55
Attendance at important	2.9	0.57	2.8	0.57	2.8	0.55	3.2	0.65	3.0	0.60	2.7	0.53	2.6	0.53
family events														
Plans to start a family	2.9	0.57	2.9	0.59	2.8	0.55	3.2	0.63	2.5	0.51	2.8	0.56	2.7	0.55
Spouse career choices	2.8	0.56	2.9	0.59	2.5	0.50	3.4	0.68	2.5	0.51	2.7	0.53	2.8	0.56
Friendships	2.8	0.56	2.7	0.54	2.5	0.50	3.2	0.63	2.5	0.51	2.7	0.53	2.7	0.55
Financial costs (like childcare)	2.8	0.56	3.1	0.61	2.8	0.55	3.1	0.62	2.7	0.55	2.7	0.53	2.8	0.56
Family relationships	2.8	0.56	2.8	0.55	2.5	0.50	3.4	0.68	2.5	0.49	2.6	0.52	2.7	0.55
Life satisfaction in general	2.8	0.56	2.8	0.55	2.8	0.55	3.2	0.63	2.6	0.53	2.6	0.52	3.0	0.60
My general mood	2.8	0.55	2.6	0.51	2.3	0.45	3.3	0.66	2.5	0.51	2.6	0.53	2.5	0.51
Spouse/romantic	2.7	0.54	2.6	0.53	2.3	0.45	3.2	0.65	2.5	0.51	2.5	0.50	2.6	0.53
relationships														
Physical health/fitness	2.6	0.53	2.4	0.49	3.3	0.65	3.2	0.65	2.2	0.44	2.6	0.52	2.5	0.51
Mental health	2.6	0.53	2.5	0.50	2.3	0.45	3.2	0.65	2.3	0.45	2.5	0.51	2.5	0.49
Stress at home	2.6	0.52	2.5	0.51	2.3	0.45	2.8	0.55	2.5	0.51	2.4	0.49	2.5	0.49
Diet	2.5	0.51	2.6	0.52	2.3	0.45	3.2	0.65	1.9	0.38	2.3	0.47	2.5	0.49
Exercise and leisure time	2.5	0.50	2.6	0.51	2.5	0.50	3.1	0.62	2.5	0.49	2.3	0.47	2.3	0.45
Stress in work	2.5	0.50	2.4	0.47	2.5	0.50	2.5	0.51	2.3	0.45	2.3	0.47	2.3	0.45
Sleep	2.4	0.48	2.3	0.45	2.5	0.50	2.5	0.51	2.1	0.42	2.3	0.46	2.5	0.51
Fatigue	2.4	0.48	2.4	0.47	2.3	0.45	2.5	0.49	2.1	0.42	2.3	0.47	2.1	0.42
Never being able to fully	2.4	0.47	2.3	0.45	2.3	0.45	2.8	0.55	2.3	0.45	2.3	0.47	2.1	0.42
relax														

Table 14: Ways to improve WLB (N=206)

Initiatives improve work-life balance	Mean	RII	Rank
More realistic project programs	4.17	0.83	1
Greater flexibility in hours worked	4.13	0.83	1
Resource projects properly	4.11	0.82	2
More realistic project budgets	4.11	0.82	2
Greater flexibility in where, when and how you work	4.1	0.82	2
Better project planning	4.1	0.82	2
Improving workplace culture (tolerant to work-life balance)	3.98	0.80	3
Time off in lieu of overtime	3.91	0.78	4
More supportive work colleagues	3.88	0.78	4
More supportive supervisors and line managers	3.85	0.77	5
Improved project management and supervision	3.83	0.77	5
Options to work from home and remotely	3.83	0.77	5
More leave flexibility	3.81	0.76	6
Training to work more productively	3.79	0.76	6
More technology (to improve productivity)	3.7	0.74	7
More regular breaks at work (to reduce fatigue)	3.65	0.73	8
Well-being programs at work (mental health awareness, fitness programs, resilience training etc.)	3.61	0.72	9
Improved site facilities for workers (clean toilets, disability access, cafeteria, etc.)	3.57	0.71	10
Carers leave and assistance	3.55	0.71	10
Better parental leave options	3.53	0.71	10
Part-time work options	3.47	0.69	11
Family-friendly workplace (childcare, prayer rooms, parenting room, etc.)	3.41	0.68	12
Job sharing	3.27	0.65	13
Unpaid leave	3.24	0.65	13
Rostering	3.14	0.63	14
Shift work	2.97	0.59	15

Table 15: Aspirations for WLB (N=220)

Aspirations for WLB	RII	Rank
I would like my weekends free.	0.89	1
I would like to work less days a week	0.78	2
I would like to work less hours a week	0.78	2
Work commitments prevent me from participating fully in life outside work	0.74	3
I need to work overtime to get my job done	0.73	4
I would like my weekends free and could safely increase my productivity during the week to compensate	0.72	5
The culture at work can negatively affect relationships outside work	0.67	6
I would like my weekends free and could safely work longer hours during the		
week to compensate	0.66	7
I would like to work a rotating schedule where I get alternate weekdays and		
Saturdays free	0.60	8
I would like my weekends free and could take a pay cut for it	0.54	9
Life commitments prevent me from performing fully at work	0.53	10
I would like to work more hours a week	0.40	11
I would like to work more days a week	0.36	12

¹⁼ ranked highest (most agreed on) among all respondents

¹²⁼ ranked lowest (least agreed on) among all respondents

Table 16: Cross-tabulation of roles versus hours and days worked (N=474)

	Percentages of Group 1 (Off-project salaried staff in management/leader- ship and administrative roles)	Percentage of Group 2 (On-project salaried workers in professional and supervisor roles)	Percentage of Group 3 (On- project wage earners in operative/trade/labouring roles)		
Days per week					
1	0.6	0	0		
2	0.6	0.9	1.1		
3	3.9	1.8	1.1		
4	3.2	6.4	2.1		
5	62.6	50.7	34		
6	24.5	39.3	58.5		
7	4.5	0.9	3.2		
Hours per day					
Less than 8	4.8	2.7	4.6		
8	18.7	7.2	26.4		
9	17.5	13.1	25.3		
10	25.9	28.5	23		
More than 10	33.1	48.4	20.7		
Hours per week					
Less than 35	3.2	2	2.9		
36-40	14.7	11.8	21.4		
41-45	21.8	13.2	23.3		
46-50	21.8	16.7	20.4		
51-55	16.0	26.5	15.5		
Over 55	22.4	29.9	16.5		

Table 17: Group 1 weekend work and availability

	Frequencies of Group 1 (Off-project salaried staff in management/ leadership and administrative roles)	Percentages of Group 1 (Off-project salaried staff in management/leadership and administrative roles)
Weekends per month (N=154)		
0	69	44.8
1	38	24.7
2	23	14.9
3	8	5.2
4	16	10.4
Available for work after normal working hours (by	y phone or email) (N=166)	
Constantly	66	39.8
Frequently	41	24.7
Occasionally	44	26.5
Rarely	11	6.6
Never	4	2.4

Table 18: Group 1 Paid and unpaid overtime (N=172)

	Frequency of Group 1 (Off-project salaried staff in management/ leadership and administrative roles)	Percentages of Group 1 (Off-project salaried staff in management/leadership and administrative roles)
Hours paid overtime per week	,	'
None	138	80.2
1-5	10	5.8
6-10	12	7.0
11-15	7	4.1
16-20	2	1.2
Over 20	3	1.7
Total (paid overtime per week)	34	19.8
Hours unpaid overtime per week	<u>'</u>	
None	35	21.0
1-5	36	21.6
6-10	37	22.2
11-15	19	11.4
16-20	20	12.0
Over 20	20	12.0
Total (unpaid overtime per week)	132	79

Table 19: Group 2 paid and unpaid overtime (N=200)

	Frequency of Group 2 (On-project salaried workers in professional and supervisor roles)	Percentage of Group 2 (On- project salaried workers in professional and supervisor roles)
Hours paid overtime per week		,
None	163	81.5
1-5	10	5
6-10	11	5.5
11-15	6	3
16-20	3	1.5
Over 20	7	3.5
Total (paid overtime per week)	37	37
Hours unpaid overtime per week		
None	23	11.6
1-5	27	13.6
6-10	50	25.1
11-15	48	24.1
16-20	30	15.1
Over 20	21	10.6
Total (unpaid overtime per week)	17.8	88.4

Table 20: Weekend work and availability (N=200)

	Frequencies of Group 2 (On-project salaried workers in professional and supervisor roles)	Percentages of Group 2 (On- project salaried workers in professional and supervisor roles)
Weekends per month (N=199)		,
0	40	20.1
1	45	22.6
2	78	39.2
3	16	8
4	20	10.1
Available for work after normal working ho	ours (by phone or email) (N=206)	
Constantly	51	24.8
Frequently	74	35.9
Occasionally	54	26.2
Rarely	15	7.3
Never	12	5.8

Table 21: Flexibility across the workforce (N=568)

Type of flexibility	Frequency	Valid Percent %		
Flexibility in the number of wo	orking hours			
No flexibility	131	23.1		
Some flexibility	358	63.1		
Complete flexibility	78	13.8		
Total	567	100		
Flexibility in where, when and	l how you work			
No flexibility	150	26.4		
Some flexibility	320	56.3		
Complete flexibility	98	17.3		
Total	568	100		

Table 22: Flexibility across sample demographics (N=568)

Demographic		es of Flexibi		Percentages of Flexibility in where, when and how you work			
	No Flexibility (%)	Some Flexibility (%)	Complete Flexibility (%)	No Flexibility (%)	Some Flexibility (%)	Complete Flexibility (%)	
Male	22	64	14	26.7	55.6	17.7	
Female	27	60.9	12.2	23.9	60.6	15.6	
Single	27.3	65.9	6.8	44.7	36.8	18.4	
Married or long-term de-facto partner	24.7	56.7	18.6	28.3	53.8	17.9	
Job role Group 1	11.2	66.9	21.9	12.7	59.4	27.9	
Job role Group 2	32.3	61.8	5.9	35.2	54.6	10.2	
Job role Group 3	29.9	57.7	12.4	33.7	50	16.3	
(15-24)	30.0	66.0	4.0	33.8	60.3	5.9	
(25-35)	34.7	58.2	7.1	35.3	48.2	16.5	
(36-45)	20.0	70.7	9.3	22.8	63.3	13.9	
(46-55)	12.1	70.7	17.2	16.4	61.8	21.8	
(56-65)	21.4	59.5	19.0	11.8	64.7	23.5	
(Over 65)	4.5	50.0	45.5	7.7	38.5	53.8	
Fixed salary (no paid overtime)	32.8	53.4	13.8	30.2	56.3	13.5	
Fixed salary (paid overtime)	11.1	77.8	11.1	27.3	54.5	18.2	
Hourly wage (paid overtime)	27.6	37.9	34.5	25.9	51.9	22.2	
Principal contractor	23.2	64.3	12.5	30.2	59.4	10.4	
Sub-contractor	30.4	65.2	4.3	36.4	54.5	9.1	
Consultant	28.6	50.0	21.4	12.5	43.8	43.8	
Micro business	12.0	48.0	40.0	16.7	46.7	36.7	
Small business	8.3	79.2	12.5	17.9	64.3	17.9	
Medium business	32.3	61.3	6.5	32.4	59.5	8.1	
Large business	36.7	55.1	8.2	32.2	62.7	5.1	
Commercial buildings	23.0	68.9	8.1	35.1	56.8	8.1	
Residential buildings (apartments)	20.8	70.8	8.3	26.7	53.3	20.0	
House building	12.0	64.0	24.0	7.7	38.5	53.8	
Civil and Infrastructure	36.4	54.5	9.1	40.0	43.3	16.7	

Table 23: Preferences for a hard or soft 5-day week (N=584)

Demographic	Working 5 days and having every weekend off	Working 5 days and getting alternative weekdays and Saturdays free
Male	80.1	19.9
Female	87.9	12.1
Single	73.9	26.1
Married or long-term de-facto partner	74.5	25.5
Job role Group 1	82.8	17.2
Job role Group 2	86.7	13.3
Job role Group 3	61.5	38.5
(15-24)	75.8	24.2
(25-35)	82.2	17.8
(36-45)	78.4	21.6
(46-55)	86.2	13.8
(56-65)	85.5	14.5
(Over 65)	70.6	29.4
Fixed salary (no paid overtime)	92.9	7.1
Fixed salary (paid overtime)	57.1	42.9
Hourly wage (paid overtime)	59.1	40.9
Principal contractor	83.3	16.7
Sub-contractor	94.7	5.3
Consultant	80.0	20.0
Micro business	64.0	36.0
Small business	76.2	23.8
Medium business	82.9	17.1
Large business	90.2	9.8
Commercial buildings	86.1	13.9
Residential buildings (apartments)	70.8	29.2
House building	67.7	32.3
Civil and Infrastructure	66.7	33.3
City areas	86.6	13.4
Regional areas	85.4	14.6

Table 24: Effects of 5-day week scenarios on WLB (N=584)

Impact of 5-day week on WLB	Mean	RII	Rank
Working 5 days and more productively every day to avoid a pay cut	3.77	0.75	1
Working 5 days and extra hours every day to avoid a pay cut	3.11	0.62	2
Working 5 days and taking a pay cut for not working the weekend	3	0.60	3

Table 25: Effects on WLB for different 5-day week scenarios across sample demographics (N=570)

Demographic	ographic Working 5 days and taking a pay cut for not working the weekend			_	rking 5 days and extra hours every day void a pay cut				Working 5 days and more productively every day to avoid a pay cut						
	Significantly	Slightly	Not	Slightly	Significantly	Significantly	Slightly	Not	Slightly	Significantly	Significantly	Slightly	Not	Slightly	Significantly
Mala	improve	improve	affected	worsen	worsen 1F.C	improve	improve	affected	worsen	worsen 8.9	improve	improve	affected	worsen	worsen
Male	20.1	13.9	28.8	21.6	15.6	16.5	20.1	36.8	17.7		30.5	26.4	34.6	5.4	3.0
Female	15.4	8.7	43.3	21.2	11.5	9.6	14.4	41.3	19.2	15.4	35.6	25.0	33.7	1.9	3.8
Single	20.5	15.4	20.5	28.2	15.4	12.8	7.7	28.2	43.6	7.7	28.2	35.9	20.5	12.8	2.6
Married or															
long-term de-facto															
partner	45.0	44.0	04.0	00.4	04.4	40.0	0.4.5	07.0	440	40.0	00.0	00.0	00.7		0.4
•	15.3	11.2	31.6	20.4	21.4	13.3	24.5	37.8	14.3	10.2	30.6	28.6	33.7	4.1	3.1
Job role Group	44.4	40.0	40.7	40.0	40.0	40.0	47.4	40.5	40.0	10.0	40.0	00.0	40.5	0.0	0.0
1	11.4	10.2	46.7	19.2	12.6	10.2	17.4	48.5	13.2	10.8	18.6	26.9	48.5	3.0	3.0
Job role Group	40	47.5	040	0.4	45.7	440	47.5	00.0	040	40.4	00.7	05.0	07.0	4.0	
2	18	17.5	24.9	24	15.7	14.3	17.5	33.2	24.9	10.1	38.7	25.8	27.2	4.6	3.7
Job role Group															
3	37	8.7	20.7	16.3	17.4	30.4	17.4	26.1	15.2	10.9	32.6	22.8	27.2	10.9	6.5
(15-24)	29.7	18.8	18.8	20.3	12.5	17.2	12.5	26.6	26.6	17.2	42.2	29.7	17.2	3.1	7.8
(25-35)	18.8	13.5	26.0	24.0	17.7	18.8	16.7	34.4	17.7	12.5	38.5	22.9	28.1	4.2	6.3
(36-45)	32.4	15.5	28.2	15.5	8.5	23.9	21.1	40.8	5.6	8.5	32.4	21.1	38.0	7.0	1.4
(46-55)	11.1	13.9	37.5	19.4	18.1	16.7	13.9	44.4	16.7	8.3	22.2	16.7	54.2	5.6	1.4
(56-65)	13.9	8.3	44.4	16.7	16.7	8.3	30.6	41.7	16.7	2.8	27.8	19.4	47.2	2.8	2.8
(Over 65)	10.0	0.0	45.0	35.0	10.0	5.0	10.0	65.0	10.0	10.0	20.0	5.0	60.0	10.0	5.0
Fixed salary	10.0	0.0	40.0	00.0	10.0	0.0	10.0	00.0	10.0	10.0	20.0	0.0	00.0	10.0	0.0
(no paid															
overtime)	19.6	14.0	32.7	18.7	15.0	12.1	23.4	39.3	17.8	7.5	31.8	28.0	35.5	1.9	2.8
Fixed salary	10.0	14.0	02.7	10.7	10.0	12.1	20.4	00.0	17.0	7.0	01.0	20.0	00.0	1.0	2.0
(paid															
overtime)	20.0	10.0	20.0	30.0	20.0	30.0	20.0	20.0	30.0	0.0	50.0	30.0	10.0	10.0	0.0
Hourly wage	20.0	10.0	20.0	00.0	20.0	00.0	20.0	20.0	00.0	0.0	00.0	00.0	10.0	10.0	0.0
(paid															
overtime)	39.4	12.1	21.2	12.1	15.2	39.4	9.1	24.2	18.2	9.1	45.5	21.2	21.2	6.1	6.1
Principal															
contractor	14.0	10.8	34.4	31.2	9.7	10.8	21.5	39.8	21.5	6.5	35.5	29.0	33.3	2.2	0.0
Sub-															
contractor	26.9	11.5	23.1	26.9	11.5	23.1	23.1	23.1	23.1	7.7	19.2	38.5	19.2	19.2	3.8
Consultant	16.7	8.3	25.0	25.0	25.0	8.3	33.3	41.7	0.0	16.7	33.3	25.0	41.7	0.0	0.0
Micro	2017	0.0	2010	20.0	2010	0.0	00.0		0.0	2017	55.5	20.0	1217	0.0	0.0
business	6.9	3.4	44.8	37.9	6.9	13.8	20.7	48.3	6.9	10.3	13.8	13.8	62.1	3.4	6.9
Small	0.0	0.4	11.0	07.0	0.0	10.0	20.7	40.0	0.0	10.0	10.0	10.0	02.1	0.7	0.0
business	31.0	24.1	27.6	3.4	13.8	10.3	27.6	41.4	10.3	10.3	20.7	31.0	44.8	0.0	3.4
Medium	01.0	24.1	27.0	0.4	10.0	10.0	27.0	71.7	10.0	10.0	20.7	01.0	44.0	0.0	0.4
business	19.4	12.9	45.2	16.1	6.5	6.5	19.4	45.2	19.4	9.7	22.6	32.3	35.5	9.7	0.0
Large	10.4	12.0	40.2	10.1	0.0	0.0	10.4	70.2	10.4	0.,	22.0	02.0	00.0	0.7	0.0
business	24.6	15.4	20.0	23.1	16.9	21.5	15.4	35.4	18.5	9.2	43.1	23.1	27.7	1.5	4.6
Commercial	24.0	10.4	20.0	20.1	10.0	21.0	10.4	00.4	10.0	0.2	40.1	20.1	27.7	1.0	4.0
buildings	27.5	5.8	30.4	20.3	15.9	24.6	14.5	42.0	7.2	11.6	37.7	26.1	27.5	2.9	5.8
Residential	27.3	5.0	50.4	20.0	15.5	24.0	14.5	42.0	1.2	11.0	37.7	20.1	27.5	2.3	5.0
buildings															
(apartments)	17.4	8.7	43.5	4.3	26.1	21.7	13.0	39.1	8.7	17.4	39.1	21.7	34.8	4.3	0.0
House	17.4	0.7	40.0	4.0	20.1	21./	13.0	55.1	0.7	17.4	35.1	21./	54.0	4.5	0.0
building	7.7	23.1	42.3	19.2	7.7	3.8	11.5	57.7	19.2	7.7	11.5	26.9	50.0	11.5	0.0
Civil and	1.1	23.1	42.3	15.2	1./	3.6	11.5	57.7	13.2	1./	11.3	20.9	50.0	11.5	0.0
Infrastructure	36.8	0.0	21.1	36.8	5.3	26.2	10.5	21.1	31.6	10 E	47.4	21 1	31.6	0.0	0.0
						26.3				10.5		21.1			0.0
City areas	23.5	18.6	27.5	18.6	11.8	16.7	19.6	34.3	12.7	16.7	32.4	22.5	36.3	3.9	4.9
Regional															_
areas	12.5	12.5	42.5	17.5	15.0	2.5	17.5	45.0	27.5	7.5	22.5	22.5	47.5	5.0	2.5

Table 26: Likelihood of looking for a second job if required to work a hard 5-day week (N=578)

Demographic	If you were requi		ould you look for a second job to
	Yes	No	Possibly
Male	9.8	75.2	15.0
Female	5.6	76.6	17.8
Single	9.5	69.0	21.4
Married or long-term de-facto partner	3.9	74.5	21.6
Job role Group 1	6.3	80.7	13.1
Job role Group 2	6.3	78.4	15.3
Job role Group 3	20.0	58.8	21.3
(15-24)	17.5	59.6	22.8
(25-35)	6.2	77.8	16.0
(36-45)	9.3	80.2	10.5
(46-55)	1.8	82.5	15.8
(56-65)	10.0	81.7	8.3
(Over 65)	5.3	78.9	15.8
Fixed salary (no paid over-time)	8.3	76.7	15.0
Fixed salary (paid over- time)	0.0	100.0	0.0
Hourly wage (paid over- time)	28.6	61.9	9.5
Principal contractor	7.9	78.1	14.0
Sub-contractor	9.5	66.7	23.8
Consultant	0.0	92.9	7.1
Micro business	10.7	82.1	7.1
Small business	7.7	73.1	19.2
Medium business	5.7	82.9	11.4
_arge business	7.9	82.5	9.5
Commercial buildings	11.9	72.6	15.5
Residential buildings (apartments)	31.3	56.3	12.5
House building	13.0	65.2	21.7
Civil and Infrastructure	13.6	59.1	27.3
City areas	7.4	78.7	13.9
Regional areas	18.2	63.6	18.2
Remote areas	0.0	0.0	100.0



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