

**The economic costs of sexual harassment in the
workplace**
Final report

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Glossary

Acronym	Full name
ABS	Australian Bureau of Statistics
AHRC	Australian Human Rights Commission
AWE	average weekly earnings
BEACH	Bettering the Evaluation and Care of Health
CALD	culturally and linguistically diverse
DALY	disability-adjusted life year
GP	general practitioner
HILDA	Household, Income and Labour Dynamics in Australia
MSPB	Merit Systems Protection Board
SEIFA	Socioeconomic Indexes for Areas
WHO	World Health Organization

The following terms are used throughout the report:

- **Absenteeism** and **presenteeism**: this is a measure of the lost output due to employees taking paid and unpaid leave from work due to workplace sexual harassment. It is costed using a **friction methodology**, which reflects the short-run disruption to production until output is restored to its former level. While absenteeism measures the lost output from employees taking time off work, presenteeism captures the lost output from employees who are at work but who are operating at reduced efficiency due to workplace sexual harassment. It is measured using a **human capital approach** that captures the lost employee income in the long run.
- **Cost of illness**: This is the standard terminology for a study which estimates the costs of a particular health condition or a negative social activity (for example, sexual harassment).
- **Deadweight losses**: These are estimates of the societal inefficiencies that occur when taxes are raised above the level that they would otherwise have been, for example to pay for additional health services as a result of workplace sexual harassment. These inefficiencies arise because the imposition of taxes can change the way in which people work, consume and invest, leading to an allocation of economic resources and activity that is less efficient than it would have been in the absence of taxes.
- **Disability-adjusted life year (DALY)**: DALYs are used to measure a reduction in an individual's wellbeing resulting from workplace sexual harassment. The DALY is a non-financial approach (reported in years) to measuring the reduction in wellbeing, which is comprised of **years of life lost due to premature death (YLLs)** and **years of healthy life lost due to morbidity (YLDs)**. YLLs measure the loss of future years of life where an individual dies earlier than expected, while YLDs measure the reduction in wellbeing while an individual lives in a non-perfect health state. The **disability weight** is a key input to estimate YLDs, which is a standardised measure that reflects the relative reduction in health-related quality of life that is measured on a scale from zero (perfect health) to one (worst health state). Measuring the reduction in wellbeing using DALYs overcomes issues of comparability between individuals and nations.
- **Gross domestic product** and **gross value added**. The size of the economy is measured using gross domestic product, which is the sum of all spending in the economy by individuals, government, and business, plus income from exports and minus spending on imports. The **productivity costs** which are estimated in the report represent a reduction in gross domestic product. The **gross value added** of an industry is the industry's contribution to gross domestic product.
- **Prevalence and incidence**: the prevalence approach measures the number of people who have been sexually harassed in the workplace over a period of time, and estimates the costs that were incurred in

that period (typically one year). The incidence approach measures the number of people who have been sexually harassed in the workplace in a given year, and estimates the future costs due to the harassment.

- **Productivity costs.** In this report productivity costs include **absenteeism** and **presenteeism, increased staff turnover, and manager time**, which arise from workplace sexual harassment. Productivity costs reduce gross domestic product as they disrupt production from its normal level, reducing society's overall ability to produce goods and services. For example, presenteeism due to harassment reduces gross domestic product as a worker may spend time on making an official complaint about the harassment, which is time that is lost from their usual labour.
- **Severity and impact:** This report includes a framework for estimating the costs of workplace sexual harassment. In the framework, "severity" refers to the nature of the behaviour that has occurred, while "impact" refers to the overall impact from the harassment.
- **Value of a statistical life year:** The reduction in wellbeing, as measured in DALYs, can be converted into a dollar figure using an estimate of the **value of a statistical life**. The value of a statistical life is an estimate of the value society places on an anonymous life, and thus, does not reflect any particular person's life. The value of a statistical life is typically measured using a willingness to pay approach, which uses preferences of individuals (stated or revealed) to measure the value of enhancing health, or conversely, the willingness to accept worse health outcomes.

Executive summary

This report estimates the economic costs of workplace sexual harassment in Australia. Estimating the cost of workplace sexual harassment to the Australian economy is intended to increase awareness of the issue and its impacts by bringing new evidence to light regarding its various costs and who bears them.

Overview

Workplace sexual harassment imposes a range of costs that impact on individuals – including victims, perpetrators, and bystanders – employers, the government, and society. These costs include lost productivity (that reduce gross domestic product); other costs such as for healthcare, complaints and investigations (that do not reduce gross domestic product); and lost wellbeing of victims.

There has been little prior research into the economic costs of workplace sexual harassment, i.e. the extent to which economic output is lower, and economic resources are allocated sub-optimally, due to workplace sexual harassment. A targeted literature search has not identified any prior studies that have estimated the cost of workplace sexual harassment in Australia. A search of the international literature has identified a small number of studies that have articulated a range of costs.

This report is a world-first, noting that it builds on and extends previous work in the United States by the Merit Systems Protection Board (MSPB). The data used in the modelling were the best available, however, were not collected for the purposes of estimating the economic costs of workplace sexual harassment in Australia. No new primary data were collected for this project. Given this context, there are additional costs from workplace sexual harassment that were not able to be included in the modelling. These include longer-term impacts on income, career progression and workforce participation, the impact of individuals moving to another job that is less well-aligned with their skills and interests, and the cost to business of internal investigations.

A model was constructed to estimate the costs of workplace sexual harassment. The model used a bottom-up approach, by first establishing the number of people who have been sexually harassed in the workplace, and then estimating a range of costs for these people. The primary data source used in the modelling was the Australian Human Rights Commission's (AHRC's) 2018 *Fourth national survey on sexual harassment in Australian workplaces* (the AHRC survey). This survey, conducted in early 2018, surveyed approximately 10,000 people to investigate the prevalence, nature, and reporting of sexual harassment in Australian workplaces, and in the community more broadly. The other main source of data was from the MSPB's survey of Federal Government employees in the United States, which provided inputs for some of the costs.

The model estimated the economic costs of workplace sexual harassment over two years: costs that were incurred in 2018; and also costs in 2019 for harassment that has occurred in 2018. Due to limitations in the available evidence, it was not possible to include costs beyond this two-year period, noting that for some people the costs of workplace sexual harassment will extend for longer than two years.¹ There were also additional short-term costs, such as lost income from being demoted, that were not possible to model given the available information.

Each case of workplace sexual harassment is different. Some cases impose a larger cost, and some cases impose a smaller cost. To capture the differences between each case, an impacts framework was developed which allowed each case of workplace sexual harassment to be categorised into one of four categories, ranging from Category One (least impact) through to Category Four (most impact).

This framework was developed with reference to findings from the academic literature, which identified the following domains as influencing the impact of each case:

- The severity² of the behaviour that was experienced in the case – for example, unwelcome sexually suggestive comments are considered to impose fewer costs compared to sexual assault.

¹ For example, delayed career progression, reduced participation in the workforce, and/or long-term impacts on income.

² In this report, "severity" is used to refer to the nature of the behaviour experienced in the case, while "impact" is used to refer to the overall impact of the case.

- If the perpetrator of the harassment was in a supervisory position to the victim.
- Whether the case was a one-off occurrence, or whether it persisted for a shorter time (up to six months) or a longer time (over six months).

The categories reflect the average impact for all people in the category. As such, there will be people in each category who are more severely (or less severely) impacted than the average impact for the category.

Model inputs

As specified in the *Sex Discrimination Act 1984*, a person sexually harasses another person if: (1) the person makes an unwelcome sexual advance, or an unwelcome request for sexual favours, to the person harassed; or (2) engages in other unwelcome conduct of a sexual nature in relation to the person harassed. The description applies in circumstances in which a reasonable person, having regard to all the circumstances, would have anticipated the possibility that the person harassed would be offended, humiliated or intimidated.

The results from the AHRC's survey showed that 20% of the Australian workforce has been the victim of workplace sexual harassment in the past year. This rate is higher for women (23%) compared to men (16%). Deloitte Access Economics extrapolated these results to the estimated number of people employed in 2018. In total, 2.5 million people were estimated to have been sexually harassed in the workplace in the past twelve months, which includes 1.0 million men and 1.5 million women. The distribution of cases into each of the impact categories was similar for men and women, albeit women were slightly more likely to experience higher impact cases than men were.

The productivity costs of workplace sexual harassment that were included in the model were as follows. Inputs for estimating these costs were sourced from the AHRC and MSPB surveys:

- Short-term absences from work (annual leave, sick leave, and unpaid leave) for victims, referred to as "absenteeism". On average, a victim of workplace sexual harassment was estimated to take 0.8 days of leave due to the harassment. This average reflects that a high proportion of victims (>90%) reported taking no leave, while a small proportion of victims took large amounts of leave (for example, >80 hours). There were significant differences between the impact categories, with victims in Category 1 taking an average of 0.7 hours of leave, and victims in Category 4 taking an average of 36 hours of leave.
- Reduced productivity while at work, known as "presenteeism". On average, a victim of workplace sexual harassment was estimated to have presenteeism of 3.2%, with this reduction persisting for 2.4 weeks. This average reflects that almost 80% of victims reported no presenteeism, while less than 1% reported their presenteeism to be over 50%. As with absenteeism, the productivity loss in each category was different, ranging from less than 2% in Category 1 through to almost 13% in Category 4.
- Increased staff turnover – for victims, bystanders, and perpetrators – either through an employee resigning, or having their employment terminated. In 10% of cases, somebody associated with the harassment – a victim, bystander, or perpetrator – leaves the organisation. Two thirds of these cases are resignations, with the remaining third being a termination of employment. Terminations can occur for all three types of people associated with the case. While all staff will leave an organisation eventually and thus impose costs on the organisation, the harassment "brings forward" these costs from when they would otherwise have occurred.
- The opportunity cost of manager time from responding to complaints, but not including other costs to business of internal investigations. On average, 10% of victims lodged a formal complaint with their organisation.

Other costs of workplace sexual harassment that were included in the model, which do not represent a loss to gross domestic product,³ include the following items:

- Use of the health system, such as by visits to GPs, psychiatrists, psychologists, and counsellors; the costs of pharmaceuticals prescribed to treat mental health conditions; the costs of employer-funded Employee Assistance Programs, and the costs of treating injuries for sexual assault victims. From the AHRC Survey,

³ Many of these costs, such as spending on healthcare, or legal fees, may increase economic activity compared to a world where workplace sexual harassment does not exist. For example, a visit to a health professional represents a service, which has been provided to the individual who was harassed. Thus, these other costs do not represent a loss to gross domestic product. However, spending on these services may represent a sub-optimal use of money, and in the absence of workplace sexual harassment this money could have been spent on other goods and services.

fewer than 1% of victims accessed GP services. On average, 3% of victims accessed counsellor or psychologist services.

- The costs of complaints lodged with the AHRC or jurisdictional anti-discrimination agencies, and for court cases.
- For sexual assault cases that proceeded to court, a police investigation was assumed to occur, and based on Australian Institute of Criminology analysis 38% of sexual assault defendants were judged to be guilty.
- There were also deadweight losses, that are increased when taxes are raised above the level that they would otherwise have been in the absence of workplace sexual harassment. Tax rates are higher than they would otherwise have been under the assumption that governments maintain a budget neutral position, despite the decreased tax revenue and increased government spending due to workplace sexual harassment.

The final cost element was lost wellbeing to the victim. This category captures the loss of healthy life, which can be measured using disability-adjusted life years (DALYs), and monetised using the value of a statistical life year (as stipulated by the Department of the Prime Minister and Cabinet.⁴) The DALY is a non-financial approach (reported in years) to measuring the reduction in an individual's wellbeing, which in this report includes the years of healthy life lost due to morbidity (YLDs). The value of a statistical life year is an estimate of the value society places on saving the loss of an anonymous year of life. The value of a statistical life year does not reflect any particular person's life.

Due to limitations in the available evidence, the modelled loss of wellbeing was limited to victims of actual or attempted sexual assault only. Victims in other impact categories will also experience a loss of wellbeing, but as the evidence to-date is only cross sectional it is not possible to include lost wellbeing costs for the other impact categories.

The model separately identified the costs of workplace sexual harassment for different sub groups defined by age and gender, industry, public/private sector, employer size, employment relationship, culturally and linguistically diverse employees, Aboriginal and Torres Strait Islander employees, employees with a disability, sexual orientation of employees, and socioeconomic status of employees. This was done by varying the prevalence of workplace sexual harassment in each sub group, the income levels in each sub group, and the impact category distribution for each sub group.

Results

In 2018, workplace sexual harassment imposed a number of costs. The costs included in the model were:

- \$2.6 billion in lost productivity, or \$1,053 on average per victim.
- \$0.9 billion in other costs, or \$375 on average per victim.

At an average weekly wage of \$1,244 across the economy, each case of workplace sexual harassment represents approximately 4 working days of lost output. The largest loss of productivity – staff turnover, 32% of costs – results in lost income to individuals, lost profits to employers, and reduced tax paid to government. Significant losses also result from absenteeism (28% of costs), and manager time (24% of costs). The results from the model are shown in Table i.

Finally, the model estimated lost wellbeing for victims of actual or attempted sexual assault at a total of \$249.6 million in lost wellbeing, or \$4,989 on average per victim.

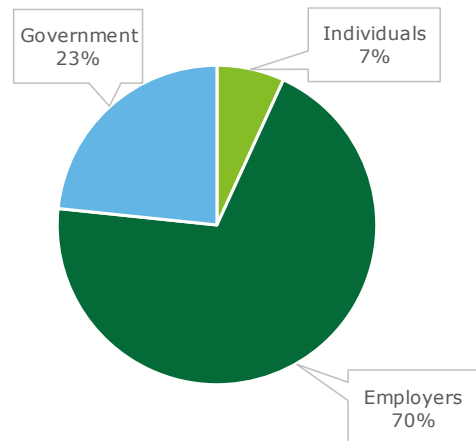
⁴ Available at https://www.pmc.gov.au/sites/default/files/publications/Value_of_Statistical_Life_guidance_note.pdf. In 2018 dollars, the value of a statistical life year is almost \$200,000.

Table i Costs of workplace sexual harassment

Component	Cost in 2018 (\$m)	Cost per person in 2018 (\$)
Productivity	2,622.2	1,053
Absenteeism	741.8	297
Presenteeism	426.4	171
Staff turnover	830.6	336
Manager time	623.4	250
Other costs	936.5	375
Health system	63.4	25
AHRC/jurisdictional agency investigations	0.8	0
Individual legal fees	290.4	116
Government justice system costs	158.4	63
Deadweight losses	423.5	170

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

The economic costs of workplace sexual harassment are shared by individuals, their employers, government, and society. Approximately two thirds of lost productivity (70%) is borne by employers, with government (23%) losing tax revenue, and individuals (7%) losing income. Between the sub-groups, most of the per person productivity losses are due to differences in income in each group. However, the largest share of lost productivity was experienced in the 25-34 years female age group. This is due to the high rates of harassment experienced by individuals in this group, and occurs despite the average weekly earnings in this group being lower than the national average. Detailed results for each sub group are shown in Section 4.2.



Discussion

This report is a world-first – noting that it builds on and extends previous work in the United States by the MSPB – and the modelling has been conducted using the evidence available at the time. The results of the analysis should be interpreted within this context, and with reference to the caveats and limitations presented in the report. Future data collection efforts may assist with refining the estimated costs of workplace sexual harassment.

Deloitte Access Economics

1 Introduction

Deloitte Access Economics was engaged by the Treasury to estimate the economic costs of sexual harassment in the workplace, to inform the Australian Human Rights Commission's (AHRC's) *National inquiry into sexual harassment in Australian workplaces*.

Estimating the cost of workplace sexual harassment to the Australian economy is intended to increase awareness of the issue and its impacts by bringing new evidence to light regarding its various costs and who bears them. Estimating the economic cost also provides a basis for estimating the cost-effectiveness of interventions to address the problem, which can in turn be used alongside recommendations to reduce workplace sexual harassment and provide an economic catalyst for change, in addition to moral and ethical arguments.

The report has been structured as follows:

- *Section 1* provides a summary of relevant literature on the costs of workplace sexual harassment.
- *Section 2* explains the conceptual framework used for the analysis, including the definition of workplace sexual harassment, time aspects of the model, and the framework that was developed for estimating the impact of each case of workplace sexual harassment.
- *Section 3* outlines the methodology and data sources that were used for each cost element.
- *Section 4* presents the results of the analysis.
- *Section 5* discusses limitations of the analysis, and presents additional survey analysis.
- *Appendix A* contains supplementary data analysis.
- *Appendix B* provides additional methodological detail.

There has been little prior research into the economic costs of workplace sexual harassment. A targeted literature search has not identified any prior studies that have estimated the cost of workplace sexual harassment in Australia. A search of the international literature has identified a small number of studies that have articulated a range of costs.

Two common approaches to assessing sexual harassment in surveys are the direct approach and behavioural approach. The direct approach asks participants some variant of "have you ever been sexually harassed?" and is largely influenced by whether survey participants label their experiences as sexual harassment (Chan et al., 2008). The behavioural approach uses specific descriptions of behaviours, for example "have you experienced uninvited and deliberate touching, leaning over, cornering or pinching?" (Merit Systems Protection Board, 1981) which allows for the range of experiences that can constitute sexual harassment to be better considered by the participant.

The largest and most complete study into workplace sexual harassment has been undertaken by the United States Merit Systems Protection Board (MSPB). The first study was undertaken in 1981, with subsequent studies undertaken in 1988, 1995 and 2018.⁵ The first study created a bespoke survey in consultation with academic researchers, which returned over 20,000 responses, and asked respondents to identify whether they had experienced certain behaviours. Subsequent studies refined the initial set of questions.

The surveys collected a range of information from US Federal Government employees that focused on the productivity impacts of workplace sexual harassment, such as the proportion of employees who were absent from work and the number of days absent, the proportion of employees who experienced reduced productivity, and the percentage by which their baseline productivity was reduced. From the 1981 survey, the MSPB estimated the cost of sexual harassment in the US Federal Government to be US\$189 million over the

⁵ Merit Systems Protection Board. (1981). *Sexual harassment in the federal workplace is it a problem?*; Merit Systems Protection Board. (1988). *Sexual harassment in the federal Government: An Update*; Merit Systems Protection Board. (1995). *Sexual harassment in the federal workplace Trends, Progress, Continuing Challenges*; Merit Systems Protection Board. (2018). *Update on Sexual Harassment in the Federal Workplace*.

two years between 1978 and 1980.⁶ This figure included the cost of replacing staff who left their job due to sexual harassment, insurance claims for medical services, and productivity costs. In the original survey, a number of cost estimates relied on assumptions, for example, the number of days each employee was absent from work, however subsequent surveys asked employees to specify greater levels of detail. In 1995, the cost to government had increased to \$327 million over a two-year period (noting that methodological changes contributed to this increase, in addition to increases in salaries).⁷ The MSPB's 2018 update on sexual harassment in the Federal workplace did not estimate the cost.

Another set of studies covering a wide range of impacts were undertaken by Faley et al (1982; 1999; 2006), estimating the cost of workplace sexual harassment in the United States Army.⁸ These studies asked respondents whether they had experienced uninvited and unwanted sexual attention. The 2006 study addressed the cost of same-sex workplace sexual harassment. In the 1999 study, the authors used a military survey to estimate the costs of sexual harassment in 1988 to be \$250 million.⁹ Three broad categories of costs were identified: productivity related costs, administrative costs and other costs. These included costs for replacing staff who leave or transfer due to sexual harassment, absenteeism and the costs of staff working less productively due to sexual harassment.

Sandroff (1988) surveyed individuals across 160 Fortune-500 companies to estimate the organisational costs of workplace sexual harassment.¹⁰ The study estimated the costs to be \$6.7 million per company per year, and included increased absenteeism and turnover, and well as reduced productivity. However, as noted by Faley et al (1999), limited reliance should be placed on these results, as the study methodology is not publicly available.

In late 2018, the International Centre for Research on Women released a publication on the costs to business of workplace sexual harassment.¹¹ This publication summarised the findings from a systematic literature search on studies which had quantified various aspects of the costs of workplace sexual harassment. These included:

- Individual productivity losses: \$22,500 per individual, in 2007 dollars. This figure is from a 2007 meta-analysis¹² which identified a negative correlation between sexual harassment and productivity. It is important to note that this figure is intended to be illustrative.¹³ As such, Deloitte Access Economics considers that it should not be viewed as a modelled estimate of the productivity losses. Section 3.2 presents Deloitte Access Economics' methodology for estimating individual productivity losses.
- Reductions in team performance: results from the 1995 MSPB study (see above), which estimated these losses to be almost US\$200 million over 1992-1994. However, in arriving at this figure the MSPB study asked respondents to identify whether the sexual harassment they had experienced negatively impacted on their team's productivity, and then assumed this decrease to be 1%. As such, Deloitte Access Economics considers that this estimate should be viewed with caution. As no evidence is available to robustly estimate this impact, this cost category was not included in the model.

⁶ At the time, this was approximately equivalent to the total annual salaries of all 465 agency heads, and half the salary costs for all 7,000 members of the Senior Executive Service. On a per person basis, across 462,000 victims this is approximately US\$409 per victim. Adjusted for historical inflation and for purchasing power parity between the US and Australia, this is approximately AUD\$1,800 in 2018.

⁷ Insufficient information was provided in the 1995 report to enable a per person cost to be calculated.

⁸ Faley, R. H. (1982). Sexual harassment: Critical review of legal cases with general principles and preventive measures. *Personnel Psychology*, 35(3), 583-600.

Faley, R. H., Knapp, D. E., Kustis, G. A., Dubois, C. L., Young, J., & Polin, B. (2006). Estimating the organizational costs of same-sex sexual harassment: The case of the US Army. *International Journal of Intercultural Relations*, 30(5), 557-577.

Faley, R. H., Knapp, D. E., Kustis, G. A., & Dubois, C. L. (1999). Estimating the organizational costs of sexual harassment: The case of the US Army. *Journal of Business and Psychology*, 13(4), 461-484.

⁹ Insufficient information was provided in the study to enable a per person cost to be calculated.

¹⁰ Sandroff, R. (1988). Sexual harassment in the Fortune 500. *Working Woman*, 13, no. 12: 69-73.

¹¹ Rizzo, T., Stevanovic-Fenn, N., Smith, G., Glinksi, A., O'Brien-Milne, L., Gammage, S. 2018. *The costs of sex-based harassment to business*. International Centre for Research on Women. Available from <https://www.icrw.org/publications/the-costs-of-sex-based-harassment-to-businesses/> [accessed February 2019].

¹² Willness, C. R., Steel, P., & Lee, K. (2007). A meta-analysis of the antecedents and consequences of workplace sexual harassment. *Personnel psychology*, 60(1), 127-162.

¹³ Personal communication, Dr. C. R. Willness, 14 February 2019.

- Turnover and transfer costs: these were expressed on a per employee basis, with a range of \$5,000-\$211,000 depending on the employee’s industry and level. Section 3.2.3 outlines Deloitte Access Economics’ methodology for estimating these costs. As noted in Section 3.2.3, all employees will eventually leave an organisation, and so job turnover related to workplace sexual harassment merely brings forward turnover that would have occurred anyway. As such, the true costs of turnover due to workplace sexual harassment are likely much lower than those cited in the International Centre for Research on Women publication.
- Litigation: US\$75,000-US\$217,000. These US-specific figures were specified on a website for insurance agents¹⁴. Deloitte Access Economics was not able to identify the source for these figures. Section 3.3.3 outlines the approach that Deloitte Access Economics used for estimating the value of compensation paid to victims in Australia.
- Insurance. US\$1,000-\$1 million per claim. These figures were provided in a Washington Post article¹⁵. However, these costs are for “retention”, which is effectively the litigation costs that are covered by the employer, rather than the insurer. As such, these costs would be covered in the litigation costs in the previous dot point. Deloitte Access Economics was not able to identify reliable data on the insurance costs for Australian businesses to protect against discrimination claims, which include sexual harassment claims. These costs are noted in Section 3, but were not included in the model.

While the costs of workplace sexual harassment have not been extensively studied, more research has been conducted into the costs of sexual assault, which is one type of workplace sexual harassment as well as occurring outside the workplace. A sample of this work is summarised in Table 1.1.

Table 1.1 Sample of prior studies on the costs of sexual assault

Study	Cost per person	Inclusions
Post et al (2002) ¹⁶	US\$108,447 – annual cost (1996)	Lost productivity, medical services, and lost quality of life
Peterson et al (2017) ¹⁷	US\$122,461 (2014) – lifetime cost	Lost productivity (victim and perpetrator), medical costs, justice system costs, and victim property loss and damage
Smyth (2011) ¹⁸	AUD\$11,013 (2011) – annual cost	Lost output, medical costs, and intangible costs ¹⁹ .

Source: As noted in table.

¹⁴ <https://www.trustedchoice.com/business-insurance/liability/epli/>

¹⁵ https://www.washingtonpost.com/business/economy/more-companies-are-buying-insurance-against-sexual-harassment-complaints/2017/11/02/a7297f9a-bd69-11e7-959c-fe2b598d8c00_story.html?noredirect=on&utm_term=.3882c228fd05

¹⁶ Post, L. A., Mezey, N. J., Maxwell, C., & Wibert, W. N. (2002). The rape tax: Tangible and intangible costs of sexual violence. *Journal of Interpersonal Violence*, 17(7), 773-782.

¹⁷ Peterson, C., DeGue, S., Florence, C., & Lokey, C. N. (2017). Lifetime economic burden of rape among US adults. *American journal of preventive medicine*, 52(6), 691-701.

¹⁸ Smyth, R. (2011). Costs of crime in Victoria. *Criminal Justice*, 2689, 27-36.

¹⁹ Intangible costs are used by the Australian Institute of Criminology to reflect fear, pain and suffering, and lost quality of life. Smyth identifies that the cost of rape is likely to be higher relative to other types of sexual assault, however, notes that there is no guide as to the cost of rape relative to other forms of sexual assault.

2 Conceptual framework

This section outlines the methodology that was followed, and the data sources that were used, in undertaking the analysis.

2.1 Overview of the methodology

Workplace sexual harassment imposes a range of costs that impact on individuals – including victims, perpetrators, and bystanders – employers, the government, and society. These costs include lost productivity, increased spending on healthcare, costs of complaints and investigations, and lost wellbeing of victims.

A model was constructed to estimate the economic costs of workplace sexual harassment. The model leveraged a proprietary Deloitte Access Economics “cost of illness” model²⁰, which has been used previously to estimate the costs from a range of activities such as physical and sexual violence, child abuse, domestic violence, depression and anxiety, and the costs of physical and mental workplace injuries.

It is important to note that the data used in the modelling were the best available, however, were not collected for the purposes of estimating the economic costs of workplace sexual harassment in Australia. No new primary data were collected for this project. As with any data, there are limitations in the data that were used. These limitations are discussed throughout the report, and Section 5 discusses recommendations for future data collection efforts.

The model used a bottom-up approach, by first establishing the number of people who have been sexually harassed in the workplace, and then estimating a range of costs for these people. The primary data source used in the modelling was the AHRC’s 2018 *Fourth national survey on sexual harassment in Australian workplaces* (the AHRC survey²¹). This survey, conducted in early 2018, surveyed approximately 10,000 people to investigate the prevalence, nature, and reporting of sexual harassment in Australian workplaces, and in the community more broadly. Deloitte Access Economics used the survey’s de-identified, confidentialised unit record file to generate many inputs for the modelling, such as the prevalence of workplace sexual harassment, staff turnover, healthcare usage, and the rate at which complaints were lodged. Many other sources from the peer reviewed and grey literature were used in the model, which are discussed throughout this report.

There were several key components that were used to construct the model:

- The definition of workplace sexual harassment. This is discussed in Section 2.2.
- The number of people in the workforce who have been sexually harassed at a point in time. This is known as the *prevalence* of workplace sexual harassment. A similar concept is the *prevalence rate* of workplace sexual harassment, which is a percentage that expresses the share of the workforce who have been sexually harassed. Related to this, the costs of harassment can be measured over a specified period of time for people who have been harassed in that period, or measured as future costs for harassment that occurs for the first time in a given period. These concepts are explored in Section 2.3.
- Each case of workplace sexual harassment is different, as there are many factors that determine the size of costs to individuals, employers, the government and society. For modelling purposes, three dimensions of workplace sexual harassment were used to construct an impact framework, which assigned each case of workplace sexual harassment to an impact category. The impact framework is presented in Section 2.4.
- The nature of the costs that are imposed through workplace sexual harassment. There are many costs of workplace sexual harassment, including costs that are amenable to quantification, and costs that are difficult to quantify due to the available data and evidence. For this project, the quantified costs included productivity costs, other costs (e.g., for healthcare, and the justice system), and lost wellbeing. These are discussed in Section 3. The costs of workplace sexual harassment which cannot be quantified using

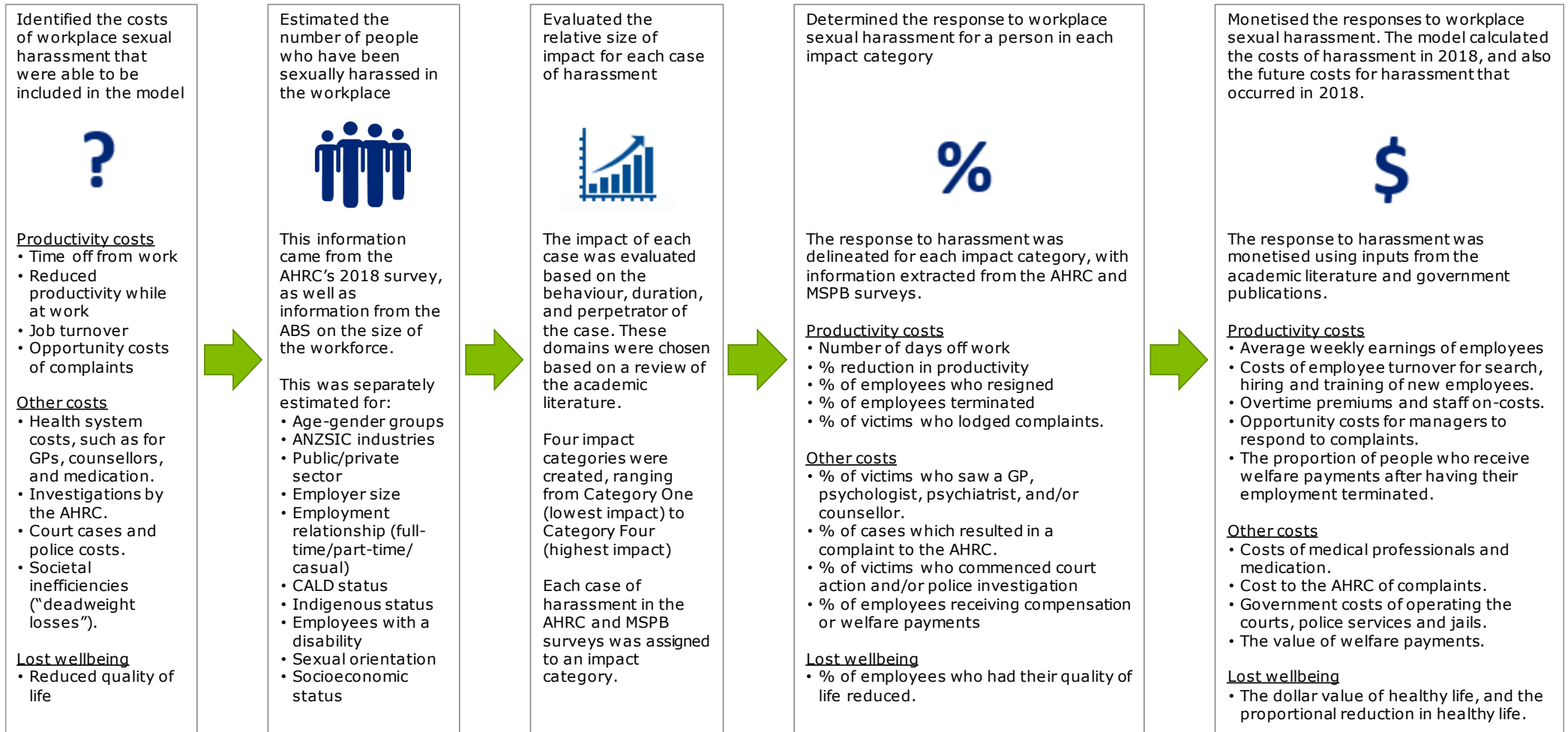
²⁰ An introduction to cost of illness models is provided in Segel 2006, *Cost-of-illness studies – a primer*, RTI-UNC Centre of Excellence in Health Promotion Economics. The phrase “cost of illness” is the standard terminology for a study which estimates the costs of a particular health condition or a negative social activity (for example, sexual harassment).

²¹ The results extracted from the AHRC unit record files by Deloitte Access Economics are consistent with the weighted results published in the AHRC report.

existing data and information – such as disrupted career progression, long-term impacts, and impacts on the victim’s family – are discussed throughout the report, with the longer-term costs of workplace sexual harassment discussed throughout the report and summarised in Table 3.1.

The overall approach that was used for the modelling is summarised in Figure 2.1, and discussed further in the remainder of Section 2.

Figure 2.1 Modelling approach



Source: Deloitte Access Economics

2.2 Defining workplace sexual harassment

As specified in the *Sex Discrimination Act 1984*, a person sexually harasses another person if: (1) the person makes an unwelcome sexual advance, or an unwelcome request for sexual favours, to the person harassed; or (2) engages in other unwelcome conduct of a sexual nature in relation to the person harassed. The description applies in circumstances in which a reasonable person, having regard to all the circumstances, would have anticipated the possibility that the person harassed would be offended, humiliated or intimidated. Workplace sexual harassment can occur both in the physical workplace, but also in external environments (for example, after-work drinks at a bar or on social media). It can be perpetrated by colleagues (junior, senior or peer) or clients/customers, and also by other people associated with a workplace.

Measuring sexual harassment using this approach requires people to have an understanding of what is defined as sexual harassment. As many people do not have a clear understanding of what constitutes workplace sexual harassment,²² an alternative approach for measuring workplace sexual harassment is to define it using a list of behaviours that constitute sexual harassment.

The AHRC survey asked people to identify whether they had experienced the following behaviours:

- unwelcome touching, hugging, cornering or kissing;
- inappropriate staring or leering that made you feel intimidated;
- sexual gestures, indecent exposure or inappropriate display of the body;
- sexually explicit pictures, posters or gifts that made you feel offended;
- repeated or inappropriate invitations to go out on dates;
- intrusive questions about your private life or physical appearance that made you feel offended;
- sexually explicit comments made in emails, SMS messages or on social media;
- inappropriate physical contact;
- repeated or inappropriate advances on email, social networking websites, or Internet chat rooms;
- being followed, watched or someone loitering nearby;
- sexually suggestive comments or jokes that made you feel offended;
- sharing or threatening to share intimate images or film of you without your consent;
- indecent phone calls, including someone leaving a sexually explicit message on voicemail or an answering machine;
- requests or pressure for sex or other sexual acts;
- actual or attempted rape or sexual assault; and
- any other unwelcome conduct of a sexual nature that occurred online or via some form of technology.

The AHRC's behaviours approach to defining workplace sexual harassment was used in this study, as it provides a detailed systematic representation of the occurrence of workplace sexual harassment, and it aligns with the evidence from the AHRC survey which was captured for each behaviours-based case of sexual harassment.²³

2.3 Time aspects

There are two broad approaches to measuring the economic costs of workplace sexual harassment: the prevalence approach and the incidence approach. The **prevalence approach** measures the number of people who have been sexually harassed in the workplace over a period of time, and estimates the costs due to the workplace sexual harassment that were incurred in that period – typically one year. For this project, the prevalence of workplace sexual harassment was measured for 2018.

²² In the AHRC's 2018 survey on workplace sexual harassment, close to 1 in 3 people who said they had not been harassed went on to indicate they actually had been harassed when behaviours were described to them. Hersch (2015) has noted that utilising data from a behavioural survey is a better estimate of the prevalence of workplace sexual harassment as people tend to under report sexual harassment when asked directly without contextualising behaviours. [Hersch, J. (2015). *Sexual harassment in the workplace. IZA World of Labor.*]

²³ The AHRC's 2018 survey also asked respondents "have you personally experienced sexual harassment?", which resulted in a much lower prevalence of sexual harassment. However, as no further questions were asked that related to this question, it was not possible to use the results of this question in the analysis.

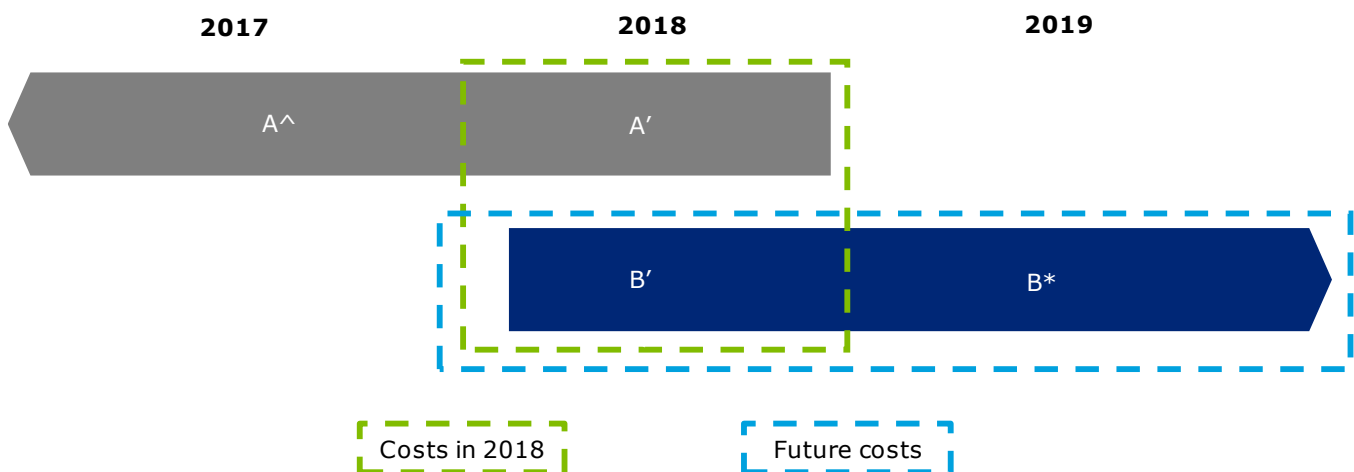
The **incidence approach** measures the number of people who have been sexually harassed in the workplace in a given year (for example, 2018), and estimates the future costs due to the harassment.²⁴ As outlined in Section 3, the costs of workplace sexual harassment that were included in the model did not extend beyond the following year. As longitudinal studies on the impact of sexual harassment are not available, it was not possible to estimate longer-term impacts such as disrupted career progression. Thus, for workplace sexual harassment that occurred in 2018, the estimated costs do not extend past 2019.

The approach that is used has implications for how the costs of workplace sexual harassment are calculated. Figure 2.2 demonstrates the conceptual differences between the incidence and prevalence approaches to measuring the cost of workplace sexual harassment.

- Case A represents someone who has experienced workplace sexual harassment in 2017, where the associated costs include $A^{\wedge} + A'$.
- Case B represents someone who has experienced workplace sexual harassment in 2018, with future costs of $B' + B^*$.

Using a **prevalence approach**, costs in the base year relating to A and B would be included, where the total cost in 2018 is equal to costs A' and B' . Using an **incidence approach**, the future costs of workplace sexual harassment that has occurred in 2018 are the sum of B' and B^* .

Figure 2.2 Conceptual differences between incidence and prevalence approaches to measurement of costs



Source: Deloitte Access Economics.

As per Figure 2.2, the prevalence approach was used to estimate the costs of workplace sexual harassment incurred in 2018, for:

- the costs incurred in 2018 from cases that commenced prior to 2018; and
- the costs that were incurred in 2018 from cases that occurred in 2018.

To estimate the future costs for workplace sexual harassment that happens in 2018, the incidence approach was used to estimate costs that are incurred in 2018 and 2019.

2.4 Impacts framework

Estimating the economic cost of a case of workplace sexual harassment is a complex task, given the wide range of behaviours that constitute workplace sexual harassment (see Section 2.2). This means that some cases would be expected to impose larger costs (for example, sexual assault) and some cases impose smaller costs (for example, sexual remarks). Furthermore, there are other specific considerations for each case that

²⁴ Note that the incidence of workplace sexual harassment is different from the number of incidents of sexual harassment, which refers to the number of times sexual harassment occurred in a given time period (rather than the number of new people it happened to).

influence the costs imposed by a particular case. In this report, “severity” is used to refer to the nature of the behaviour experienced in the case, while “impact” is used to refer to the overall impact of the case.

Several prior studies – discussed in the remainder of this section – have used a variety of factors to classify the likely impact of costs imposed by a particular case of workplace sexual harassment. It is important to note that the categories reflect the average impact for all people in the category. As such, there will be people in each category who are more severely (or less severely) impacted than the average impact for the category.

With reference to prior studies and the nature of the data collected in the AHRC survey, Deloitte Access Economics used the following domains to classify each case of workplace sexual harassment into an overall impact classification of low, medium and high:

- the severity (nature of the behaviour that was experienced in the case);
- the perpetrator of the case; and
- the duration of the case.

In addition to the three elements noted above, the Langhout et al (2005) model of situational and personal determinants of the impacts of workplace sexual harassment also included the victim’s subjective appraisal of the harassment.²⁵ The most direct corollary between this variable and the AHRC survey would be the questions on victim perception of intimidation and offence. However, for this study it was considered that the three domains of behaviour severity, perpetrator and duration were likely to be relatively independent of each other, while subjective appraisal of the impact of the harassment was likely to be significantly influenced by the other variables. For example, in their study of 6,304 personnel from the United States army, Settles (2014) found that the perpetrator of sexual harassment influenced the victim’s subjective appraisal of the impact of the harassment.²⁶ Similarly, it would be expected that duration and behaviour severity would also influence the victim’s appraisal of the impact of the harassment. Appendix B explores the influence of behaviour, duration and perpetrator on the victim’s level of intimidation and offence. The analysis in Appendix B supports the exclusion of victim intimidation and offence from the impacts framework.

In addition to what has been identified in the data and the literature for inclusion in the framework, the AHRC has noted that there are a number other factors that could reasonably be expected to affect the relative impact to the victim of a case of sexual harassment, including but not limited to: the number of perpetrators; the response of workplace management to an incident; and the vulnerability of the victim (for example, from previous experiences of workplace sexual harassment).

2.4.1 The behaviour severity experienced in the case

As noted by Langhout et al (2005), it is widely accepted that the type of behaviour experienced influences the impact of the case on the victim. Cass et al (2010) found that the type of behaviour affected a jury opinion on compensation outcomes.²⁷ Jurors who read a severe harassment scenario were more likely to agree that the victim had suffered and should be compensated, compared to a mild harassment scenario.

For this study, Deloitte Access Economics adopted the severity of behaviours described in the MSPB research. The MSPB’s 1981 survey, and subsequent surveys in 1988 and 1995, presented respondents with a variety of behaviours and asked them to identify the extent to which they considered each behaviour to constitute workplace sexual harassment.²⁸ Behaviours with a high level of agreement were considered to be more severe, while those with a mixed response were considered to be less severe. The MSPB classified behaviours into three categories: less severe, more severe, and most severe. The MSPB did not ask respondents to

²⁵ Langhout, R. D., Bergman, M. E., Cortina, L. M., Fitzgerald, L. F., Drasgow, F., & Williams, J. H. (2005). Sexual Harassment Severity: Assessing Situational and Personal Determinants and Outcomes 1. *Journal of Applied Social Psychology*, 35(5), 975-1007.

²⁶ Settles, I. H., Buchanan, N. T., Yap, S. C., & Harrell, Z. A. (2014). Sex differences in outcomes and harasser characteristics associated with frightening sexual harassment appraisals. *Journal of Occupational Health Psychology*, 19(2), 133.

²⁷ Cass, S. A., Levett, L. M., & Kovera, M. B. (2010). The effects of harassment severity and organizational behavior on damage awards in a hostile work environment sexual harassment case. *Behavioral sciences & the law*, 28(3), 303-321.

²⁸ Subsequent surveys in 1988 and 1995 asked the same questions of respondents, with similar results.

identify whether actual or attempted sexual assault constituted sexual harassment, as due to its criminal nature they assigned it to the highest severity category.

- Less severe behaviours included pressure for dates, sexually suggestive looks or gestures, and sexual teasing, jokes, remarks or questions.
- More severe behaviours included letters, phone calls or materials of a sexual nature; pressure for sexual favours; and deliberate touching, leaning over, cornering or pinching.
- The most severe behaviours were actual or attempted rape or assault.

Table 2.1 shows the proportion of men and women who considered each of the six behaviours (excluding sexual assault) to constitute sexual harassment. The questions were phrased as “if a supervisor did the behaviour” and “if another worker did this”, with a higher level of agreement for the supervisor as the perpetrator.

Table 2.1 Proportion of respondents who agreed that each behaviour constituted workplace sexual harassment

Behaviour	Supervisor, males (%)	Supervisor, females (%)	Another worker, males (%)	Another worker, females (%)
Letters and calls	93	87	87	76
Pressure for sexual favours	91	84	81	65
Deliberate touching	91	83	84	69
Pressure for dates	77	76	65	59
Suggestive looks	72	59	64	47
Sexual remarks	62	53	54	42

Source: MSPB 1981.

The AHRC survey included additional behaviours as well as more granularity for each behaviour. The behaviours from the AHRC survey that were described in more granularity – for example, the MSPB described behaviour of “deliberate touching”, while the AHRC included separate behaviours of “inappropriate physical contact” and “unwelcome touching, hugging, cornering or kissing” – were mapped to the severity classification based on the corresponding behaviour from the MSPB. The behaviours described in the AHRC survey that had no corresponding behaviour from the MSPB have been classified based on Deloitte Access Economics’ assessment of the likely severity of the behaviour, and were discussed and agreed with Treasury. The classification of behaviours is shown in Table 2.2.

Table 2.2 Classification of behaviours

Category	MSPB (1981) behaviours	Corresponding behaviours from AHRC (2018)	Additional behaviours from AHRC (2018)
Less severe	Sexual remarks	Sexually suggestive comments or jokes that made you feel offended	
	Suggestive looks	Inappropriate staring or leering that made you feel intimidated	
	Pressure for dates	Repeated or inappropriate invitations to go out on dates	
			Intrusive questions about your private life or physical appearance that made you feel offended
More severe	Deliberate touching	Inappropriate physical contact Unwelcome touching, hugging, cornering, or kissing	
	Pressure for sexual favours	Requests or pressure for sex or other sexual acts	
	Letters and calls	Sexually explicit comments made in emails, SMS messages or on social media Indecent phone calls, including someone leaving a sexually explicit message on voicemail or an answering machine Repeated or inappropriate advances on email, social networking websites or internet chat rooms Any other unwelcome conduct of a sexual nature that occurred online or via some form of technology	
	Stalking (added in the 1995 survey)	Being followed, watched or someone loitering nearby	
			Sharing or threatening to share intimate images or film of you without your consent
			Sexual gestures, indecent exposure or inappropriate display of the body
			Sexually explicit pictures, posters or gifts that made you feel offended
Most severe	Actual or attempted rape or assault	Actual or attempted rape or assault	

2.4.2 The perpetrator of the case

Studies have identified that the perpetrator of a case of workplace sexual harassment influences the impact of the case on the victim. Mohipp & Senn (2008) noted that both men and women are more likely to consider a behaviour to be sexual harassment, and of a higher impact, if the perpetrator was a supervisor rather than a

co-worker.²⁹ O'Connell & Korabik (2000) identified that the more formal power that the harassers held over their targets, the more likely the targets were to report experiencing negative outcomes.³⁰ Langhout et al (2005) found that the relative severity of a case of sexual harassment was positively correlated with the relative power of the perpetrator to the victim.

A study by Till (1980) graded the impact of a case of workplace sexual behaviour based on the behaviour and whether there was an associated threat or reward as follows:³¹

1. Least severe: Generalised sexist remarks or behaviours
2. Inappropriate and offensive, but essentially sanction-free sexual advances
3. Solicitation of sexual activity or other sex-linked behaviour by promise of rewards
4. Coercion of sexual activity by threat of punishment
5. Most severe: Sexual assaults

This is in general alignment with the severity of behaviours in the MSPB's study, with the additional layer of threat/reward added for cases with a larger impact. Deloitte Access Economics considers that the additional layer of threat/reward implies that the perpetrator is in a position of power to provide the threat or reward, and, as such, the position of the perpetrator in the organisation relative to the victim influences the impact of the case.

In addition to the impact on the victim that the role of the perpetrator has, the perception that supervisors have some form of protection against accusations made against them may influence victim outcomes. This is likely to be reflected in the rate at which victims make complaints against their supervisor, and is explored in Appendix B by comparing the rate at which victims reported the behaviour when the perpetrator is their supervisor, compared to when the perpetrator is not their supervisor.

Fitzgerald et al (1995 and 1999)³² noted that an organisation's perceived level of tolerance towards sexual harassment was correlated with fewer reports of sexual harassment. An organisation's perceived level of tolerance towards sexual harassment influenced reports of sexual harassment, and a lower tolerance for sexual harassment was correlated with fewer reports of sexual harassment. To estimate the rate of sexual harassment, the study presented respondents with a survey of behaviours; however, the authors also asked respondents whether they had been sexually harassed.

For the purposes of this project, the impact framework considered sexual harassment perpetrated by clients and customers to be analogous with harassment perpetrated by non-supervisors. Friberg et al (2017)³³ found that employees who were harassed by colleagues (including supervisors and non-supervisors) had a higher mean level of depressive symptoms compared to employees who were harassed by clients/customers.

However, harassment from customers and clients is more prevalent in some industries due to the nature of the work that is performed, and may differ in nature from harassment perpetrated by colleagues. Workers in roles where creating personal, ongoing relationships with customers is considered 'part of the job' often experience higher rates of sexual harassment.^{34,35} In some person-related (caring) professions, it may be

²⁹ Mohipp, C., & Senn, C. Y. (2008). Graduate students' perceptions of contrapower sexual harassment. *Journal of Interpersonal Violence*, 23(9), 1258-1276.

³⁰O'Connell, C. E., & Korabik, K. (2000). Sexual harassment: The relationship of personal vulnerability, work context, perpetrator status, and type of harassment to outcomes. *Journal of Vocational Behavior*, 56(3), 299-329.

³¹ Till, Frank J. 'Sexual Harassment. A Report on the Sexual Harassment of Students.' (1980).

³²Fitzgerald, L. F., Gelfand, M. J., & Drasgow, F. (1995). Measuring sexual harassment: Theoretical and psychometric advances. *Basic and Applied Social Psychology*, 17(4), 425-445.

Fitzgerald, L. F., Magley, V. J., Drasgow, F., & Waldo, C. R. (1999). Measuring sexual harassment in the military: the sexual experiences questionnaire (SEQ—DoD). *Military Psychology*, 11(3), 243-263.

³³ Friberg, M. K., Hansen, J. V., Aldrich, P. T., Folker, A. P., Kjær, S., Nielsen, M. B. D., ... & Madsen, I. E. (2017).

Workplace sexual harassment and depressive symptoms: a cross-sectional multilevel analysis comparing harassment from clients or customers to harassment from other employees amongst 7603 Danish employees from 1041 organizations. *BMC public health*, 17(1), 675.

³⁴ Handy, J. (2006). Sexual harassment in small-town New Zealand: a qualitative study of three contrasting organizations. *Gender, Work & Organization*, 13(1), 1-24.

³⁵ Hughes, K., Tadic, V. (2002) 'Something to Deal With': Customer Sexual Harassment and Women's Retail Service Work in Canada, *Gender, Work and Organisation* Vol.5 Issue 4

difficult to distinguish between inappropriate sexual behaviour from clients and work-related responsibilities. For example, in eldercare, employees often work alone in clients homes and in some cases, clients may be cognitively impaired and not able to understand the consequences of their actions.³⁶

People facing sexual harassment from customers have reported that it is more difficult to address sexual harassment from customers, as their position was so tightly linked to customer relationships.³⁷ Organisations may also refrain from explicitly taking on the responsibility for making guidelines and policies regarding sexual harassment from clients and customers. Sexual harassment is also more likely to be recurrent when conducted by clients or customers compared to sexual harassment by colleagues, supervisors or subordinates.³⁸

2.4.3 Duration of the case

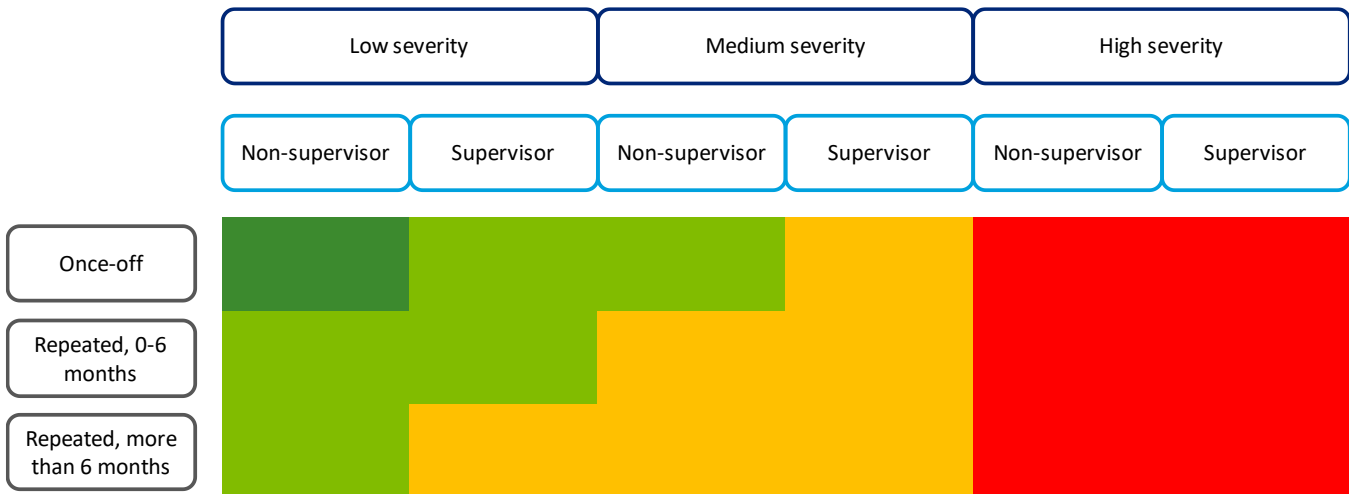
The final element in considering the impact of a case of workplace sexual harassment is the duration of the case. Langhout et al (2005), building on work from Schneider et al (1997), identified that frequent and pervasive low severity workplace sexual harassment is as offensive, disturbing, and corrosive to women’s work and wellbeing as infrequent high severity workplace sexual harassment.³⁹ Moreover, a recent meta-analysis reported significantly stronger effects for high-frequency/low-intensity experiences (e.g. gender harassment) than for low-frequency/high-intensity experiences (e.g. unwanted sexual attention, sexual coercion); this pattern held when predicting women’s job satisfaction, organisational commitment, and general health perceptions and symptoms.⁴⁰

For this study, Deloitte Access Economics categorised duration into once-off behaviours, repeat behaviours that occurred over a period up to 6 months, and repeat behaviours that occurred for a period longer than six months. This upper bound category is consistent with the categorisations used in Langhout et al (2005).

2.4.4 Framework for estimating the impacts of workplace sexual harassment

Combining the findings from the literature concerning the three most important considerations in determining the impact of a case of workplace sexual harassment, Deloitte Access Economics in discussion with Treasury developed the framework in Figure 2.3.

Figure 2.3 Framework for estimating the impact of a case of workplace sexual harassment



³⁶ Hanson, G. C., Perrin, N. A., Moss H., Laharnar N., Glass, N. (2015). Workplace violence against homecare workers and its relationship with workers health outcomes: a cross-sectional study. *BMC Public Health*. 15:11.
³⁷ Hughes, K., Tadic, V. (2002) 'Something to Deal With': Customer Sexual Harassment and Women’s Retail Service Work in Canada, *Gender, Work and Organisation* Vol.5 Issue 4
³⁸ Sharipova, M., Borg, V., & Hogh, A. (2008). Prevalence, seriousness and reporting of work-related violence in the Danish elderly care. *Scandinavian journal of caring sciences*, 22(4), 574-581.
³⁹ Schneider, K. T., Swan, S., & Fitzgerald, L. F. (1997). Job-related and psychological effects of sexual harassment in the workplace: empirical evidence from two organizations. *Journal of Applied Psychology*, 82(3), 401.
⁴⁰ Sojo, V. E., Wood, R. E., & Genat, A. E. (2016). Harmful workplace experiences and women’s occupational well-being: A meta-analysis. *Psychology of Women Quarterly*, 40(1), 10-40.

The framework assesses the impact of a given case of workplace sexual harassment into four categories:

- Category 1 Minimal impact (the lowest category) – represented by dark green in the diagram – includes cases that involve once-off behaviours, of a low severity, perpetrated by a person who is not in a supervisory position to the victim, and are assigned the lowest level impacts.
- Category 2 Mild impact – represented by light green in the diagram – include a number of permutations of low-medium severity, perpetrated by either supervisors or non-supervisors, and either once-off or repeated behaviours.
- Category 3 Medium impact – represented by orange in the diagram – include permutations as per Category 2, however are at the higher impact spectrum for each determinant.
- Category 4 High impact (the highest category) is limited to high severity behaviours – actual or attempted rape or assault – regardless of the role of the perpetrator or the duration of the case.

This framework was used in the modelling to separately identify the economic impacts of workplace sexual harassment for each category of case, as well as to extract information from the MSPB survey and apply it to the Australian context. The results from the AHRC survey, including the overall prevalence of workplace sexual harassment and the distribution of cases into each impact category, are presented in Section 3.1. Following assessment of the distribution of cases into each impact category, the framework was agreed by Treasury to be appropriate for the project.

3 Methodology and data

This section outlines the methodology and data sources that were used for each of the cost elements included in the model. There are a range of costs from workplace sexual harassment that were estimated, given the available data from the AHRC survey and the findings from prior research. These include:

- **Productivity losses** due to increased absences from work (“absenteeism”), reduced productivity while at work (“presenteeism”), increased job turnover, and time out of employment while changing jobs.
- **Other costs**, such as visits to a mental health professional or a general practitioner (GP), the costs of an investigation by the AHRC or a jurisdictional anti-discrimination agency into a case of workplace sexual harassment, and costs to the justice system and police services for more serious cases. There are also associated deadweight losses from reduced tax (due to productivity losses), increased welfare payments (for unemployment while changing jobs), and government expenditure.
- **Lost wellbeing**, as measured through DALYs and monetised using the value of a statistical life year.

As discussed throughout Section 3, there are a range of costs of workplace sexual harassment that were not able to be included in the model, given the limitations in the available evidence and data. Table 3.1 summarises the costs that were included in the model, and the costs that were not able to be included in the model.

Table 3.1 Costs of workplace sexual harassment

Category	Included in model	Not included in model
Productivity losses		
Absenteeism by victims	✓	
Presenteeism by victims	✓	
Job turnover by victims, perpetrators and bystanders	✓	
Opportunity cost of manager time in handling complaints	✓	
Reduced workgroup productivity		✓
Moving to a lower paid job		✓
Moving to a less-well suited job (internally/externally)		✓
Choosing a less-well suited career		✓
Reduced collaboration and networking		✓
Physical and interpersonal withdrawal		✓
Effect of an ambient culture of harassment in the workplace		✓
Victim being demoted, labelled as a "trouble maker", denied a promotion, and other forms of retaliation		✓
Permanent reductions in number of hours worked		✓
Long-term (> 2 years) reductions in productivity		✓
Other costs		
Health system usage	✓	
AHRC/jurisdictional anti-discrimination agency investigations	✓	
Compensation for victims	✓	
Justice system costs	✓	
Newstart payments	✓	
Welfare payments other than Newstart		✓
Deadweight losses	✓	
Costs to business of engaging advisers (for example, legal counsel and human resourcing specialists) to respond to staff complaints or undertake internal investigations		✓
Reputational or brand risk to employer		✓
Lost wellbeing		
Lost wellbeing (DALYs) arising from sexual assault	✓	
Lost wellbeing (DALYs) arising from other forms of sexual harassment		✓
Loss of trust and ability to form relationships		✓

However, to ensure that a conservative, robust estimate of the costs of workplace sexual harassment is undertaken, the full range of costs in the model were not applied to each case of sexual harassment. For this project, the following costs have been mapped to each category of case. Note that the cost inputs were calculated separately for each impact category, rather than as an average across all cases.

- For **Category 1, 2 and 3**, most costs were included.

- This included lost productivity, and other costs. As can be seen throughout this section, each cost element is higher (on a per person basis) for Category 3 compared to Category 2, and for Category 2 compared to Category 1.
- The only cost not included was lost wellbeing, as no robust evidence exists to link Category 1, 2 or 3 cases to an increased risk of other medical conditions such as depression or anxiety. As such, while Category 2 and 3 cases are likely to reduce the wellbeing of victims, it was not possible to include these costs in the model.⁴¹
- **Category 4** included all costs.

The model was used to calculate how each cost was borne by individuals and/or sectors of society. For example, a victim of workplace sexual harassment may experience a decrease in income, or bear some out-of-pocket costs for healthcare. From the employer's perspective, depending on the impact of workplace sexual harassment, work loss or absenteeism will lead to costs such as higher wages (that is, accessing skilled replacement short-term labour) or alternatively lost production, idle assets and other non-wage costs. Employers might also face costs such as rehiring and retraining due to increased job turnover.

Australian governments typically bear costs associated with the health system and other services such as the AHRC and the various state-based equivalents, and the costs of operating the courts. The government will also receive less tax if productivity decreases, however as this is a transfer between individuals/companies and the government this is not a "real" cost. It does, however, impose a deadweight loss on society, as taxes need to be raised from another (less efficient) source. The analysis in this report shows the first round impacts on government and employers. No second round or longer term dynamic impacts are modelled (i.e. changes in wages or labour market outcomes).

In regard to the time aspects (see Section 2.3), most costs that were able to be included in the model did not extend beyond the year in which the harassment occurred. Analysis of the AHRC survey showed that the average duration of a case of workplace sexual harassment was:

- 22 weeks for Category 2.
- 63 weeks for Category 3.
- 38 weeks for Category 4.

A comparison of the durations from the MSPB survey is provided in Appendix A. In summary, the average length of case from the MSPB survey is lower compared to the AHRC results. The number of days off work and the length that productivity is reduced for could foreseeably be influenced by the duration of the case. However, this difference is likely due to the answer options that were provided in the survey, and is unlikely to have had a material effect on the modelling. This is discussed further in Appendix A.

The duration for Category 1 was assumed to be 0 weeks. The AHRC survey did not ask victims for the length of harassment when it was described as "once off". However, this assumption did not affect the outcome of the modelling, as the duration of the case was only necessary to identify whether costs carried over into the following year.

As such, all costs, with the exception of staff turnover costs (see Section 3.2.3), were assumed to be incurred in the same year as the harassment occurred. Further, as Category 2 and Category 4 cases lasted less than one year, all turnover costs were also assumed to occur in the same year. For Category 3 cases, turnover costs were assumed to occur in the following year, and did not extend to any more years beyond that. This

⁴¹ It is necessary to establish a causal relationship between sexual harassment and reduced wellbeing. A correlation between these two variables is not sufficient, as correlation does not imply causation. Causal relationships are established using prospective or longitudinal studies, which track a group of people known to have been sexually harassed in the workplace to determine the odds ratio of developing a mental illness such as depression. Co-existence or cross sectional studies, while much more common, only examine the prevalence of mental illness in a population who has been sexually harassed in the workplace, after controlling for other factors such as age or gender. These types of studies do not establish that harassment caused the mental illness, since it is possible that having a mental illness may be a risk factor for reporting harassment, or there may be another factor 'x' predisposing a person to both sequelae.

It should be noted that the phrase "wellbeing" is used in many different ways in the academic literature. For this report, "wellbeing" refers to a quantifiable decrease in quality of life that is calculated using disability-adjusted life years.

assumption was made on the basis that a Category 3 case length of 63 weeks only extends a small way into the following year.

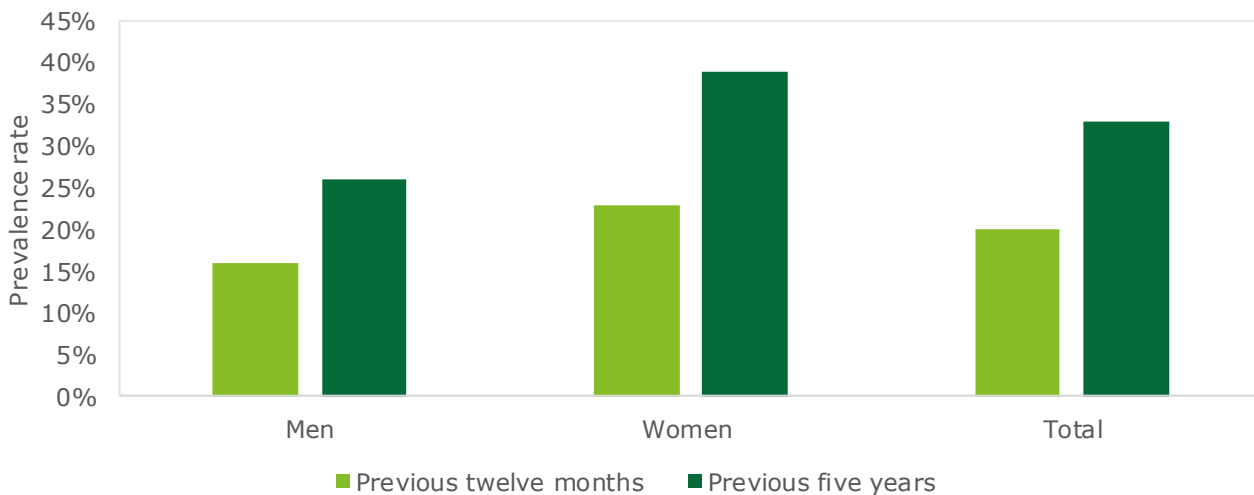
3.1 Prevalence of workplace sexual harassment

The AHRC survey recorded the five-year prevalence of workplace sexual harassment to be 33% over the period 2014-2018. Applied to the workforce in 2018, this means that approximately 4.4 million people have been sexually harassed while in the workforce in the past five years.

In total, 39% of women in the workforce, and 26% of men in the workforce have been sexually harassed in the workplace. As a victim, bystander or both, 51% of Australians (52% of women and 50% of men) in the workforce in the last five years were exposed to some form of workplace sexual harassment.

Over the past 12 months, 20% of survey respondents said that they had been sexually harassed in the workplace (23% of women, and 16% of men). In total, this means that approximately 2.6 million people have been sexually harassed in the workplace in the past 12 months. The 5-year and 12-month rates for men and women are shown in Chart 3.1.

Chart 3.1 Prevalence of workplace sexual harassment by gender



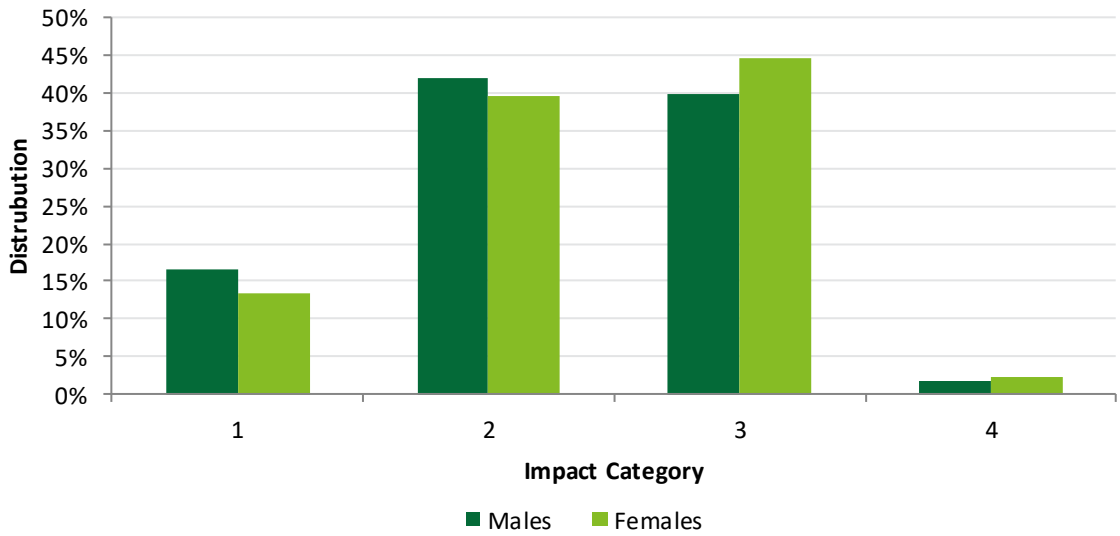
Source: Australian Human Rights Commission, 2018.

The majority of questions in the 2018 survey focused on people who had experienced workplace sexual harassment in the past 12 months. This group were used to generate most of the inputs for the model. The survey asked people in this group to identify the most recent behaviour experienced, and then answered subsequent questions based on this particular behaviour. This behaviour, along with the duration and identity of the perpetrator, were used to classify these people into the impact category. Among this group – after discarding a small proportion of incomplete responses – approximately:

- 15% of cases were in Category 1.
- 40% of cases were in Category 2.
- 43% of cases were in Category 3.
- 2% of cases were in Category 4.

The distribution in each category, by gender is provided in Chart 3.2, and shows that the distribution does not differ significantly between males and females, with the proportional representation of females in Category 3 and Category 4 being only slightly higher compared to males.

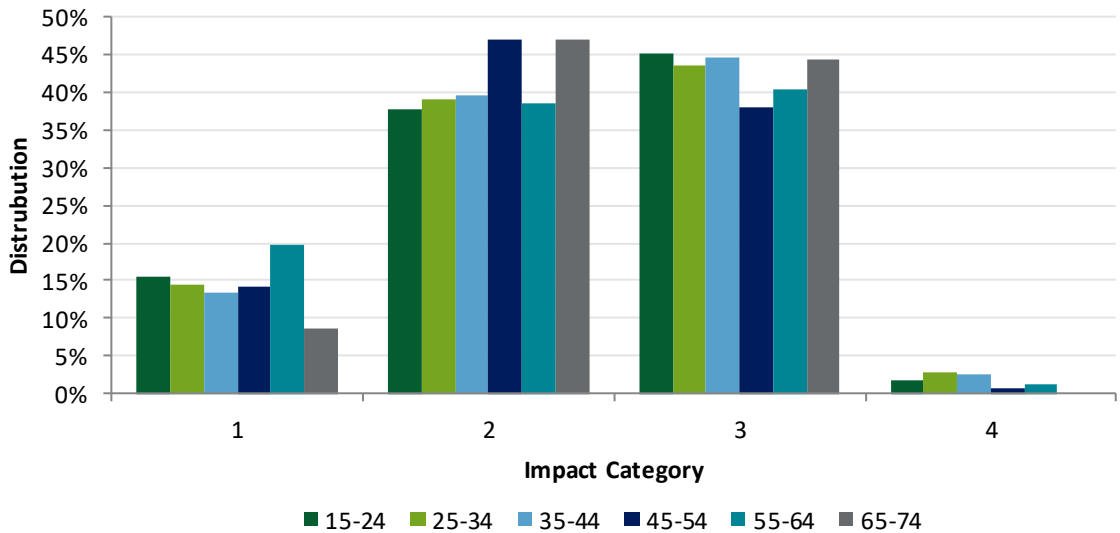
Chart 3.2 Distribution of the workforce in each impact category, by gender



Source: Deloitte Access Economics analysis of 2018 AHRC survey data.

By age, as shown in Chart 3.3, the distribution of each group in each category are similar, with the exception of the 65-74 year old group in Category 1 (less than other groups) and Category 2 (more than other groups), and the 45-54 age group in Category 2 (more than other groups) and Category 3 (less than other groups).

Chart 3.3 Distribution of the workforce in each impact category, by age



Source: Deloitte Access Economics analysis of 2018 AHRC survey data.

For perpetrators, the number of perpetrators per case that were included in the model is one.⁴² However, the mean number of perpetrators is 2.1 for males experiencing workplace sexual harassment, and for females the mean number of perpetrators is 1.4. Among victims, 79% were sexually harassed by one or more male perpetrators, with this number higher for females (93%) compared to males (58%).

⁴² The model conservatively assumed one perpetrator per case, as the AHRC survey did not capture outcomes for individual perpetrators, but rather captured outcomes for the "harasser/harassers". Thus, in cases with multiple perpetrators, it is not known whether the nominated outcomes applied to all, or only one of, the perpetrators.

In cases where there was a single perpetrator, the perpetrator was typically in the 41-50 years age group, with 54% aged 40 years and older. However, in cases with multiple perpetrators the typical age group was 31-40 years. Younger perpetrators (21-40 years) were more likely to have a male victim, while older perpetrators (51 years and over) were more likely to have a female victim.

3.1.1 Sub-group analysis

The model included sub-group analysis, by varying the prevalence rate for each group, the distribution of people in each impact category, and the average weekly earnings (AWE). The full list of these model inputs is provided in Appendix B.

In terms of the distribution of cases in each impact category, the greatest deviation from the population average was observed in the Administrative and Support Services industry, which had the greatest proportion of Category 2 cases. By employer size, employers of fewer than 20 employees had the greatest proportion of cases in Category 4 (7.0%), compared to the other employer sizes (between 1.7% and 1.8%). Among people with a disability, 58.4% were in Category 3 and 4, compared to 43.6% of people without a disability. In regard to sexual orientation, heterosexual males had the highest proportion of cases in Category 3 and 4 (53.3%), compared to non-heterosexual females who had the lowest proportion of cases in Category 3 and 4 (40.4%).⁴³

There were no major differences by Socioeconomic Indexes for Areas (SEIFA) quintile, nor by sector (private/public), culturally and linguistically diverse (CALD) status, or employment relationship (full-time/part-time/casual).

3.1.2 Changes over time

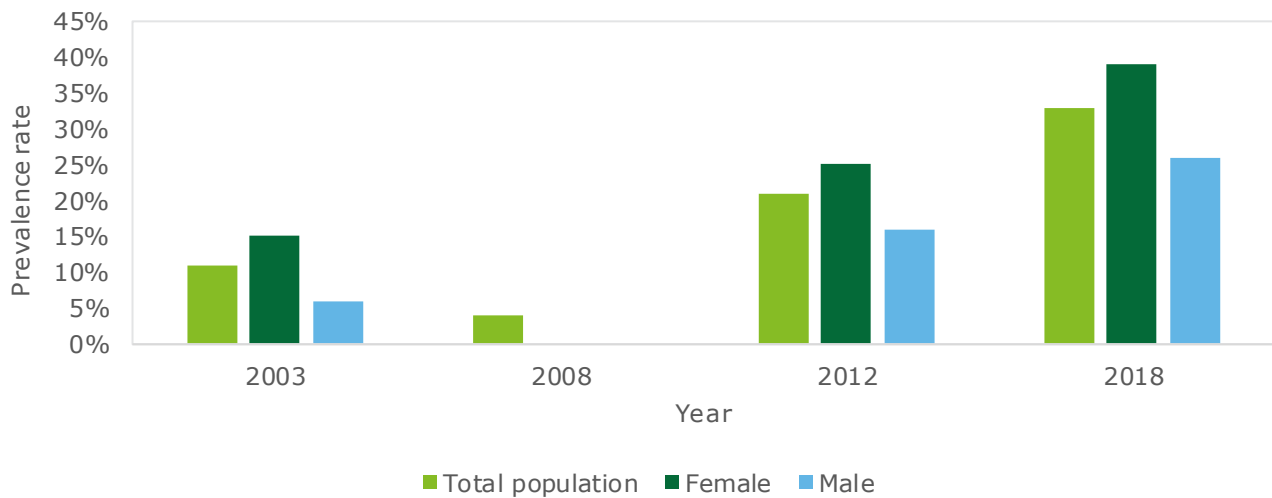
The results from the three previous AHRC survey, and the most recent survey, are shown in Chart 3.4. At face value, the prevalence rate of workplace sexual harassment dipped between 2003 and 2008, before increasing significantly in the subsequent survey (2012 and 2018). However, changes in the survey methodologies mean that these results should be interpreted with caution.

In the 2003 and 2008 surveys, respondents were asked directly whether they had experienced sexual harassment. If they answered in the affirmative, they were then provided with a list of behaviours to identify which behaviours they had experienced. In the 2018 survey, respondents were asked whether they had experienced sexual harassment in the workplace, and were also given a list of behaviours that constituted workplace sexual harassment and asked to identify whether they had been harassed using this list of behaviours. The gap between the legal and behaviour definitions is large. For example, in the 2018 survey, 43% of respondents said they had been sexually harassed when asked the question directly, but this number increased to 71% when presented with a list of behaviours that constituted sexual harassment.

In addition, the 2018 included four additional behaviours – relating to stalking, sexually explicit comments on social media, indecent phone calls, and sharing or threatening to share intimate images, which may have increased the prevalence rate. As noted by the AHRC, increased awareness impacting positively on reporting rates of sexual harassment by victims could also be driving up prevalence. Between 2012 and 2018, there was a significant increase in the media coverage and online discussion of sexual harassment, and evidence from the survey indicated that awareness and understanding of sexual harassment improved between 2012 and 2018.

⁴³ The sexual orientations other than heterosexual in the AHRC survey included gay/lesbian, bisexual, other, and "prefer not to say". These were included in the model as "non-heterosexual".

Chart 3.4 Prevalence of workplace sexual harassment in the previous four AHRC reports



Source: Australian Human Rights Commission, 2018.

3.2 Productivity costs

For this study, the effect of workplace sexual harassment on productivity taken account of in the model included:

- Short-term absences from work, including sick leave, annual leave, and unpaid leave (“absenteeism”).
- Reduced productivity while at work (“presenteeism”).
- Increased staff turnover, for victims, perpetrators and bystanders. This includes individuals who resign, as well as individuals who have their employment terminated.
- Manager time when a workplace sexual harassment complaint is made.

A number of economic methodologies were used to estimate the productivity impacts. The short-term absences (absenteeism) are shared by the worker and the employer (if paid), or entirely by the worker (if unpaid), based on a friction methodology. This reflects the short-run disruption to production, until output is restored to former levels. The employer has to pay for on-costs (on the value of the remaining leave paid), and an overtime premium for a replacement worker to make up for the lost production.

The longer-term impacts – reduced productivity while at work, and increased staff turnover – are mostly borne by individuals, using a human capital approach that captures the lost employee income. Employers incur some search, hiring and training costs to replace lost staff. The model also captures the opportunity cost of manager time for responding to complaints made by victims. This cost is borne by employers.

The productivity loss is monetised with reference to the income of the employee involved in the case, noting that this could be a victim, perpetrator or bystander. As such, a key input to the productivity calculations was AWE wage data from a variety of sources. The methodology for calculating the AWE for each group in the model, and the model inputs, are presented in Section 3.5.

While employees and employers bear some of the costs of lost productivity, the government also bears some of the cost through reduced income tax (from employees), and reduced company tax (from employers). As lost productivity represents lost income (to individuals) or lost profit (to employers), this translates into less tax being paid to government.

A key input to the productivity cost calculations was the MSPB’s 1995 survey on sexual harassment in the US Federal Government (see Section 1). This survey provided several inputs to the model’s calculations which were not available from the AHRC’s survey. These included the number of hours of leave (paid and unpaid) taken by victims of workplace sexual harassment, the reduction in productivity (presenteeism) experienced by victims, and the duration of the presenteeism.

Deloitte Access Economics obtained the raw data from this survey, and used this dataset to extract the necessary information. The MSPB survey provided sufficient information to assign each victim into an impact category (see Section 2.4). Thus, the information extracted from the dataset allowed for the productivity loss inputs to be mapped to the impact categories used in the model, and to be aligned with the outputs from the AHRC survey.

It is noted that the MSPB’s survey is of Federal Government employees in the US, and thus may not reflect the experience of the Australian government workforce or the Australian private sector. For example, Federal Government employees are likely to have higher levels of education, more job security and/or more options for changing workplaces, and better internal protocols for taking action against workplace sexual harassment. These may influence individual responses to sexual harassment, such as the impact it has on productivity, or an individual’s capacity to find a new job before resigning from their current one. The results of the MSPB survey are also from approximately 20 years ago, and may not reflect current attitudes or responses towards sexual harassment in the workplace. However, despite these limitations, this survey remains the only source of these inputs to the model. Future surveys from the AHRC could seek to capture these data that are specific to the Australian context.

3.2.1 Short-term absences from work

Absenteeism is measured by estimating the number of workdays that have been missed throughout the year due to workplace sexual harassment, and estimates production losses for the time required to restore production to levels before the absenteeism occurs. Employers often choose to make up lost production through overtime or employment of another employee that attracts a premium on the ordinary wage. The overtime premium represents lost employer profits, but also indicates how much an employer is willing to pay to maintain the same level of production. Thus, if overtime employment is not used, the overtime premium also represents lost employer profits due to lost production. For this study it was assumed that the overtime rate is 40%, based on data from Safe Work Australia (2015).⁴⁴

The MSPB survey asked respondents who had been sexually harassed to nominate ranges of time for the length of absenteeism (no leave, 8 hours or less, 9 to 16 hours, 17 to 40 hours, 41 to 80 hours, or more than 80 hours) and the type of leave (sick, annual, and unpaid). A weighted average for each category and type of leave was estimated by picking the midpoint of each range, with 85 hours conservatively used for the highest range.

The results of this analysis are shown in Table 3.2. The total amount of leave taken by each impact category was higher in the high impact categories, compared to the low impact categories. Category 4, representing the most severe harassment cases, had a significantly increased average amount of leave taken, more than three times the amount taken by Category 3. Compared to Category 2, the leave taken by people in Category 3 was almost fourteen times higher. The results for Category 2 (0.78 hours) and Category 1 (0.71 hours) were similar.

Table 3.2 Hours of leave, for each impact category

	Category 1	Category 2	Category 3	Category 4
Sick	0.21	0.48	4.47	17.50
Annual	0.15	0.26	4.96	12.01
Unpaid	0.35	0.04	1.26	6.52
Total	0.71	0.78	10.69	36.03

Source: Deloitte Access Economics analysis of MSPB 1995 survey data. This includes leave for victims only.

⁴⁴ Safe Work Australia (2015) The Cost of Work-related Injury and Illness for Australian Employers, Workers and the Community 2012–13, Canberra.

Niedhammer et al (2012)⁴⁵ used results from the 4th European Working Conditions Survey to estimate the number of days of sickness absence taken by employees who were subject to a range of psychosocial work factors. After adjusting for a range of factors, an employee who had been sexually harassed was found to take an additional 0.79 days of sick leave (for men) or 0.91 days (for women). These are higher than the weighted average results from the MSPB, which show 0.33 days of sick leave (across all categories) taken by victims due to being sexually harassed.⁴⁶ The results from the two surveys are consistent, as it is likely that the European survey was limited to higher impact cases of workplace sexual harassment, and thus the days of sick leave taken by victims are also likely to be higher. The European survey used by Niedhammer reported the 12-month incidence of workplace sexual harassment to be 2%, while the 24-month incidence of workplace sexual harassment in the MSPB survey was 44% (for women) and 19% (for men).

Niedhammer et al (2012) also compared the number of days of sickness absence from workplace sexual harassment with a range of other psychosocial work factors. For men, workplace sexual harassment resulted in the fewest days of sickness absence (0.79) compared to the sickness absence from other factors which included low decision latitude, high psychological demands, low social support, physical violence, bullying, long working hours, night work, shift work, job insecurity, low job promotion prospects, and work-life imbalance. For women, the only psychosocial work factors with fewer days of sickness absence were discrimination, and long working hours.

3.2.1.1 Distributional analysis

The results in Table 3.2 show the mean hours of leave for each impact category. However, as shown in Table 3.3, the median hours of leave taken for Categories 1-3 is zero.⁴⁷ The median hours of leave for Category 4 is 8 hours. These results indicate that for most employees, they will not take any leave due to being sexually harassed in the workplace. However, a small proportion of employees will take a large number of hours of leave, which brings the mean score above the median score.

⁴⁵ Niedhammer, I., Chastang, J. F., Sultan-Taieb, H., Vermeylen, G., & Parent-Thirion, A. (2012). Psychosocial work factors and sickness absence in 31 countries in Europe. *The European Journal of Public Health, 23*(4), 622-629.

⁴⁶ Converted from hours of leave by dividing by 7.5 hours in a standard working day.

⁴⁷ The median score (the 50th percentile) refers to the middle score in a distribution. The 25th and 75th percentiles comprise the interquartile range, which shows lower and upper ranges for the middle 50% of scores.

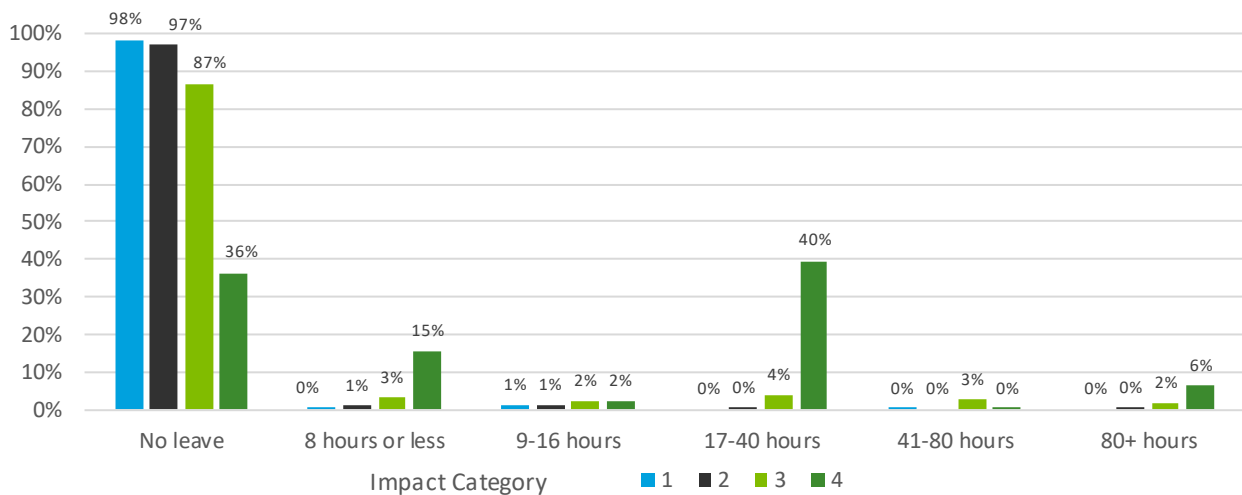
Table 3.3 Interquartile ranges for hours of leave, for each impact category

	Sick	Annual	Unpaid	Total
Category 1				
25th	0.00	0.00	0.00	0.00
50th	0.00	0.00	0.00	0.00
75th	0.00	0.00	0.00	0.00
Category 2				
25th	0.00	0.00	0.00	0.00
50th	0.00	0.00	0.00	0.00
75th	0.00	0.00	0.00	0.00
Category 3				
25th	0.00	0.00	0.00	0.00
50th	0.00	0.00	0.00	0.00
75th	0.00	0.00	0.00	0.00
Category 4				
25th	0.00	0.00	0.00	0.00
50th	4.00	4.00	0.00	8.00
75th	28.50	12.50	0.00	41.00

Source: Deloitte Access Economics analysis of MSPB 1995 survey data. This includes leave for victims only.

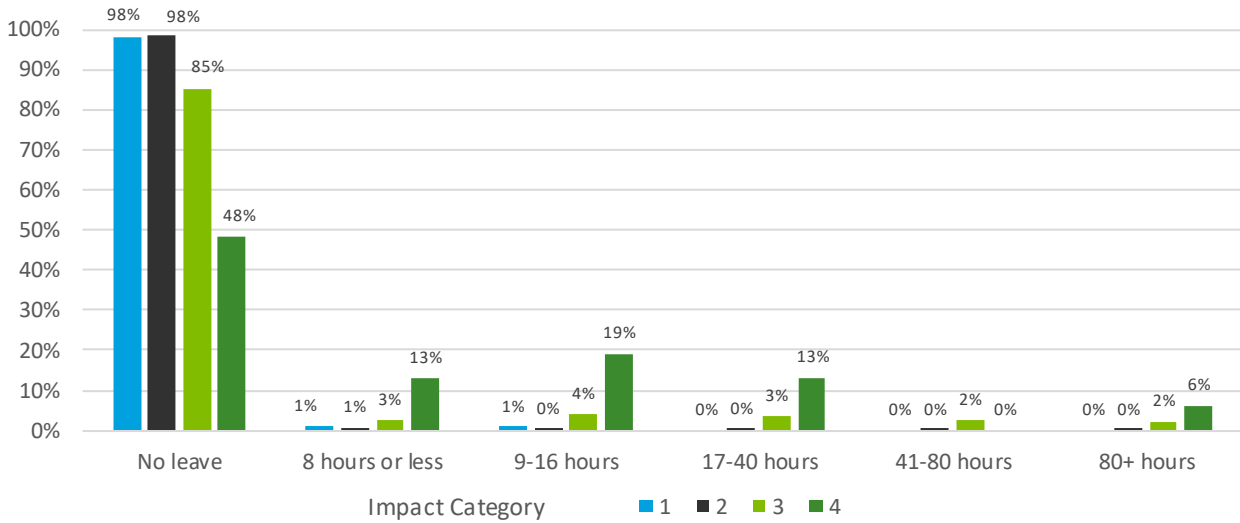
The following charts present histograms of the distribution of leave hours, for each of the impact categories. As can be seen in the charts, across all leave types, the most common response to sexual harassment was to take no leave (with the exception of Category 4 sick leave). However, while most people take no leave, the victims taking more than zero hours of leave result in the mean leave hours being greater than zero. Category 4 victims were more likely than victims in the other categories to take leave.

Chart 3.5 Histogram of hours of sick leave, for each impact category



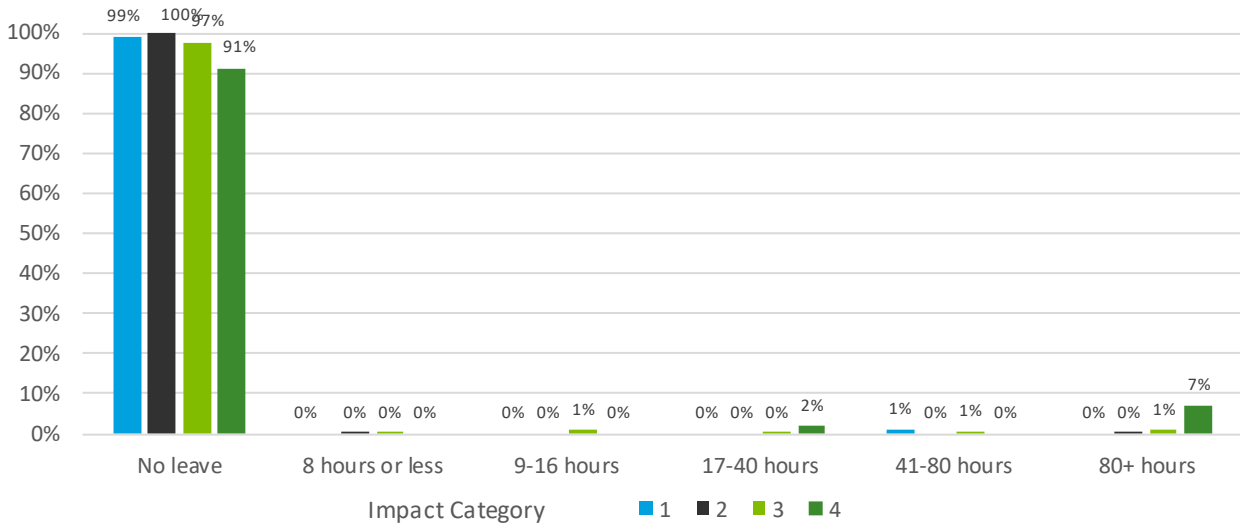
Source: Deloitte Access Economics of MSPB survey data.

Chart 3.6 Histogram of hours of annual leave, for each impact category



Source: Deloitte Access Economics of MSPB survey data.

Chart 3.7 Histogram of hours of unpaid leave, for each impact category



Source: Deloitte Access Economics of MSPB survey data.

3.2.2 Reduced productivity while at work

Presenteeism refers to the reduced productivity of an employee while at work, due to the negative effects of workplace sexual harassment on them. They may also spend time on making an official complaint about the harassment, which is time that is lost from their usual labour. As with the absenteeism costs, the presenteeism costs also used the raw survey data from the MSPB’s 1995 survey, which asked respondents to indicate whether their productivity was ‘not reduced’, ‘slightly reduced’ (10% or less), ‘noticeably reduced’ (11-25%), ‘markedly reduced’ (26-50%), ‘dramatically reduced’ (50%), or ‘don’t know/can’t judge’. Respondents were also asked how long this reduction persisted for – less than 1 week, 1 week to 1 month, 1 to 3 months, 4 to 6 months, and more than 6 months.

A weighted average of these results was calculated:

- For the percentage reduction, the mid-point of each range was used, with 55% used for the highest category.
- For the length of time that productivity was reduced for, months were converted to weeks. The mid-point of each range was used, with 40.5 weeks used for the highest category.

The results of this analysis are shown in Table 3.4. The reduction in productivity and the duration of the reduction followed a similar trend observed in respondents' average leave taken. Respondents from Category 4 had significantly greater impacts with a productivity reduction (12.97%) over two times that of Category 3 (5.55%) which persisted for three times the amount of time. The reduction for Category 1 and 2 were similar, and the length of reduction for Category 3 was longer than for Category 1 and 2.

Table 3.4 Productivity reduction due to workplace sexual harassment, for each impact category

	Category 1	Category 2	Category 3	Category 4
Reduction in productivity (%)	1.90	1.61	5.55	12.97
Length of reduction (weeks)	0.66	0.78	4.40	12.88

Source: Deloitte Access Economics analysis of MSPB 1995 survey data. This includes the productivity reduction for victims only.

Other than the MSPB studies, no literature was identified that has estimated the presenteeism impact of workplace sexual harassment. A 2012 study for Safe Work Australia⁴⁸ found that the annual productivity loss per worker through sickness absence and presenteeism was nearly double for the least psychologically healthy (\$15,505), compared to the healthiest (\$8,334). However, the report did not separately identify the components of absenteeism and presenteeism in their estimate.

A limited number of studies have explored the link between presenteeism and workplace bullying. For example, Conway et al (2016)⁴⁹ identified a positive correlation between workplace bullying and having more than eight days of reduced productivity while at work, however the study did not estimate a proportional reduction in productivity. Similarly, Janssens et al (2016)⁵⁰ calculated an increased odds ratio (1.32) of productivity loss for people experiencing high levels of workplace bullying. Hutton et al (2008)⁵¹ reported that among nursing staff there was a 9.5% presenteeism impact for staff subject to "workplace incivility", which they defined as "low-intensity, deviant behaviour with ambiguous intent to harm the target, in violation of workplace norms for mutual respect" (p. 168). Fattori et al (2015)⁵² estimated the marginal productivity loss (combined absenteeism and presenteeism) for bullied workers with a chronic medical condition, which ranged from 13.9% to 17.4%.

It is important to note the limitations of using employee-assessed estimates of presenteeism. For example, Gardner et al (2016)⁵³ has identified that employee estimates of presenteeism are weakly correlated with employer estimates of presenteeism, noting that this study was conducted on a relatively small sample (58 employees). However, as noted by Gardner, this comparison can only be undertaken in organisations with a

⁴⁸ Dollard, M & Bailey, T (Eds.). 2012, *The Australian Workplace Barometer: Psychosocial safety climate and working conditions in Australia*. Sydney: Australian Academic Press.

⁴⁹ Conway, P. M., Clausen, T., Hansen, Å. M., & Hogh, A. (2016). Workplace bullying and sickness presenteeism: cross-sectional and prospective associations in a 2-year follow-up study. *International archives of occupational and environmental health*, 89(1), 103-114.

⁵⁰ Janssens, H., Clays, E., De Clercq, B., De Bacquer, D., Casini, A., Kittel, F., & Braeckman, L. (2016). Association between psychosocial characteristics of work and presenteeism: a cross-sectional study. *International journal of occupational medicine and environmental health*, 29(2), 331-344.

⁵¹ Hutton, S., & Gates, D. (2008). Workplace incivility and productivity losses among direct care staff. *AAOHN journal*, 56(4), 168-175.

⁵² Fattori, A., Neri, L., Aguglia, E., Bellomo, A., Bisogno, A., Camerino, D., ... & Di Sciascio, G. (2015). Estimating the impact of workplace bullying: humanistic and economic burden among workers with chronic medical conditions. *BioMed research international*, 2015.

⁵³ Gardner, B. T., Dale, A. M., Buckner-Petty, S., Van Dillen, L., Amick III, B. C., & Evanoff, B. (2016). Comparison of employer productivity metrics to lost productivity estimated by commonly used questionnaires. *Journal of occupational and environmental medicine/American College of Occupational and Environmental Medicine*, 58(2), 170.

clearly defined measure of output, and so presenteeism in knowledge-based jobs needs to be estimated using employee self-assessment.

While it was not possible to include in the model given the available evidence, an ambient culture of workplace sexual harassment impacts on an organisation’s overall productivity. Raver and Gelfand (2005) regressed a range of work team performance metrics against a range of ambient workplace sexual harassment behaviours such as sexual hostility and unwanted sexual attention.⁵⁴ A range of negative impacts were observed on team relationship conflict, team task conflict, team cohesion, team citizenship behaviours, and team financial performance.

Birinxhikai and Guggisberg (2017) have identified that people observing hostility towards female co-workers (both incivility and sexually harassing behaviour) were more likely to experience lower psychological wellbeing at work, possibly due to empathy and worry for the victim, concern about the lack of fairness in their workplace, or fear of becoming the next target. Lower psychological wellbeing is an established factor in reduced productivity.⁵⁵

3.2.2.1 Distributional analysis

The results in Table 3.4 show the mean productivity reduction and length of productivity reduction for each of the impact categories. As shown in Table 3.5, the median productivity reduction for all categories are lower than the mean reduction. This indicates that the majority of victims have a reduction in productivity that is less than the mean, and a minority of victims have a relatively large reduction in productivity that is increasing the mean score. The median length of reduction for Categories 1-3 are zero weeks, which indicates that most people did not experience a reduction in productivity. For victims in Category 4, the median length of reduction was 1-3 months (9 weeks).

Table 3.5 Interquartile ranges for productivity reduction, for each impact category

	Reduction in productivity (%)	Length of reduction (weeks)
Category 1		
25th	0.00	0.00
50th	0.00	0.00
75th	0.00	0.00
Category 2		
25th	0.00	0.00
50th	0.00	0.00
75th	0.00	0.00
Category 3		
25th	0.00	0.00
50th	0.00	0.00
75th	5.00	0.50
Category 4		
25th	0.00	0.00
50th	5.00	9.00
75th	18.00	40.50

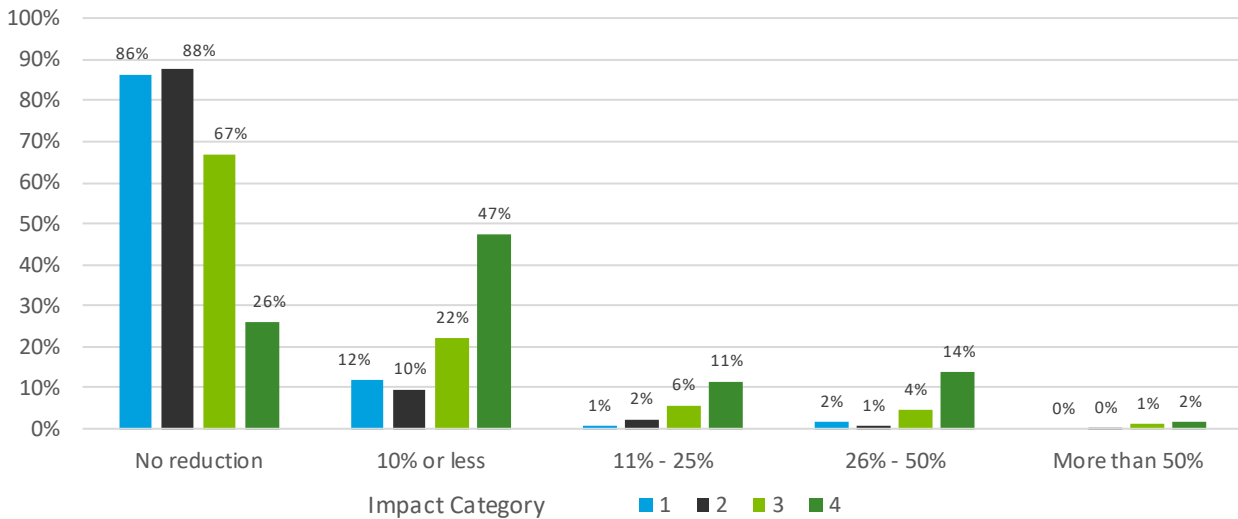
Source: Deloitte Access Economics analysis of MSPB 1995 survey data. This includes the productivity reduction for victims only.

⁵⁴Raver, J. L., & Gelfand, M. J. (2005). Beyond the individual victim: Linking sexual harassment, team processes, and team performance. *Academy of Management Journal*, 48(3), 387-400.

⁵⁵ Birinxhikaj, M., Guggisberg, M. (2017). The wide ranging impact of sexual harassment in the workplace: An Australian pilot study. *International Journal of Employment Studies* Vol.25 Issue 1

The following charts present histograms of the distribution of the productivity reduction, and the distribution of the length of reduction. As can be seen, for Categories 1-3 most victims reported no reduction in productivity, with the most common response for Category 4 victims being a <10% reduction in productivity. However, there were still a significant number of respondents in Categories 1-3 that reported a <10% reduction in productivity.

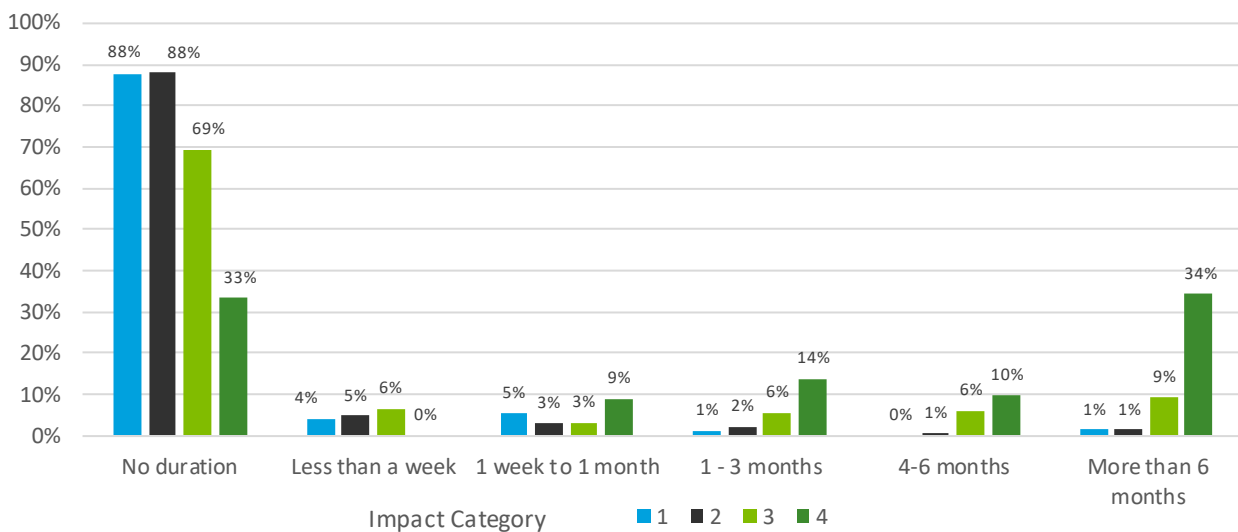
Chart 3.8 Histogram of productivity reduction, for each impact category



Source: Deloitte Access Economics of MSPB survey data.

In regard to the length of the productivity reduction, Category 4 victims were more likely to report that the reduction persisted for greater than 6 months. However, approximately the same proportion of victims reported their duration to be zero.

Chart 3.9 Histogram of length of productivity reduction, for each impact category



Source: Deloitte Access Economics of MSPB survey data.

3.2.3 Increased staff turnover

Workplace sexual harassment results in staff changing/leaving jobs more frequently than they otherwise would. For example, Terpstra (1986) surveyed female workers on their likely reaction if they were sexually

harassed in the workplace.⁵⁶ The percentage of women who would quit their job varied depending on the nature of the harassment, ranging from 14% for a sexual proposition with a job threat, through to 0% for less severe behaviours such as remarks, gestures, and sexual propositions with no threat or reward attached.

This imposes a cost on employers – who need to incur rehiring and retraining costs earlier than they otherwise would – and can also reduce income for individuals through time off between jobs. Some individuals may also leave their job before organising another job, or in some cases may have their employment terminated. In these situations, individuals may experience a period of unemployment, which reduces their income, and also requires government to pay unemployment benefits.

Results from the AHRC survey were used to identify cases which resulted in employees changing jobs due to workplace sexual harassment. This includes the victim, the perpetrator, and bystanders to the harassment.⁵⁷ Across all victims, 17% made a formal report or complaint, and the AHRC survey captured the outcomes for these employees. Of the 17%:

- 17% of victims resigned, and 8% had their employment terminated.
- 11% of perpetrators resigned, and 5% had their employment terminated.

In 38% of cases, a bystander took action to prevent or reduce the harm of the harassment that they had witnessed. Of this group, 6% resigned, and 4% had their employment terminated. The results for each impact category are shown in Table 3.6.

Table 3.6 Employee resignations and termination of employment, for each impact category

	Category 1	Category 2	Category 3	Category 4
Victim				
Resigned employment (%)	0.35	2.06	5.00	10.53
Employment was terminated (%)	0.35	0.77	1.34	2.63
Perpetrator				
Resigned employment (%)	0.35	1.93	2.32	10.53
Employment was terminated (%)	1.15	1.15	1.15	1.15
Bystander				
Resigned employment (%)	0.71	1.03	2.32	13.16
Employment was terminated (%)	0.35	1.29	1.10	10.53

Source: Deloitte Access Economics analysis of AHRC 2018 survey data.

On a weighted average basis, 3.2% of victims of workplace sexual harassment resigned their employment, and 1.0% had their employment terminated. Due to the way the AHRC survey questions were phrased, these may be conservative estimates of the rate of employee turnover. The AHRC survey only asked questions regarding resignation and termination to employees who had lodged a formal report or complaint, noting that the “formal report or complaint” could include complaining about the behaviour to a colleague. Thus, employees who had resigned or had their employment terminated without making a formal report or complaint were not captured in these questions. Anecdotally, some employees will leave an organisation after having been sexually harassed, without making a formal report or complaint.

However, compared to the results from the MSPB survey, the AHRC results appear to be similar as the comparable questions from the MSPB survey were broader in nature and so would have captured more respondents. In the MSPB survey:

⁵⁶Terpstra, D. E., & Baker, D. D. (1986). A framework for the study of sexual harassment. *Basic and Applied Social Psychology*, 7(1), 17-34.

⁵⁷ Perpetrators and bystanders were mapped to the impact category as per the victim of the case.

- 4.5% of victims “transferred or quit”, noting that this category also includes internal transfers which is broader than the AHRC category for “resigned employment”. This compares to 3.2% from the AHRC survey.
- 1.6% of victims were “reassigned or fired”, noting that this category also includes internal re-assignments which is broader than the AHRC category for “employment was terminated”. This compares to 1.0% from the AHRC survey.

It is important to note that staff turnover approximately every 6.5 years, according to the most recent data from the Household, Income and Labour Dynamics Australia (HILDA) survey.⁵⁸ Thus, each employee who resigns or who has their employment terminated as a result of workplace sexual harassment “brings forward” the staff turnover costs that would have occurred even in the absence of the harassment. Thus, the model assumes that each employee who resigns or who has their employment terminated brings forward the turnover costs by 3.25 years. This assumes each employee is halfway along the 6.5 year period of employment at their organisation.

In addition to the data in Table 3.6, the following assumptions were used to estimate the costs from increased staff turnover:

- Costs to the organisation of hiring and training new staff were conservatively assumed to be 26 weeks of time at standard weekly wage rates, consistent with Deloitte Access Economics standard approach to conservatively estimating these costs.⁵⁹ This input represents an average cost, and would likely be shorter for less complex jobs, and higher for more complex jobs.
- For individuals who resigned their employment, the results of the MSPB’s 1995 survey showed that 99% had already organised another job. This percentage was assumed to be the same for perpetrators.⁶⁰ For these individuals, they were assumed to lose income for four weeks.
- For the 1% of individuals who did not have alternative employment organised prior to their resignation, and the individuals who had their employment terminated, they were assumed to become unemployed and receive NewStart benefits⁶¹ for the average period of unemployment (51 weeks) published in the Australian Bureau of Statistics’ (ABS’) *Labour Force Survey*. It was assumed that all employees who have their employment terminated had not arranged alternative employment. Results from the Labour Force survey identified that 8.5% of people who had been retrenched ended up receiving unemployment benefits, and so this proportion was used to calculate the number of employees who received unemployment benefits. Unemployment benefits are discussed further in Section 3.3.5.
- For turnover costs relating to perpetrators leaving the organisation, a weighted average of female and male perpetrator AWE was separately calculated for female victims and for male victims, based on the distribution of the gender of the perpetrators for each victim gender. This reflects, for example, that perpetrators are more likely to be male, however female victims are more likely than male victims to have a male perpetrator (see Section 3.1.1).⁶²

While the model captures impacts such as employees resigning or having their employment terminated, there are many other turnover-related negative outcomes that were not able to be included in the model. For example, the AHRC survey recorded that among victims who lodged a formal report or complained:

⁵⁸ Wilkins, R., Lass, I. (2018) *The Household, Income and Labour Dynamics in Australia Survey: Selected Findings from Waves 1 to 16*. Melbourne Institute: Applied Economic & Social Research, University of Melbourne.

⁵⁹ Further discussion is provided in Access Economics 2004, *Costs of workplace injury to the Australian economy: reviewing the estimation methodology and estimates of the level and distribution of costs*, Report for the National Occupational Health and Safety Commission. This report presented a summary of Australian evidence which provided a range of approximately 26-52 weeks of the incumbent employee’s salary. The 26 weeks assumption is used in Safe Work Australia’s most recent estimate of the cost of work-related injury and illness in Australia (<https://www.safeworkaustralia.gov.au/system/files/documents/1702/cost-of-work-related-injury-and-disease-2012-13.docx.pdf>).

⁶⁰ Information specific to perpetrators was not available. Alternative sources of information for victims, that could be used to triangulate the MSPB data, were not identified.

⁶¹ Other impacts on welfare payments – for example, increased reliance on Family Tax Benefits, etc – cannot be estimated using the available data

⁶² The model calculated turnover costs for perpetrators based on an assumption of one perpetrator per victim. In reality, there may be multiple perpetrators for a single victim, or alternatively multiple victims for a single perpetrator. It was not possible to vary this assumption in the model, given the available information.

- 19% were labelled a trouble-maker;
- 18% were ostracised, victimised, and/or ignored by colleagues;
- 16% had their shifts changed;
- 11% were denied workplace opportunities, such as training or promotion;
- 11% were disciplined;
- 7% were transferred; and
- 6% were demoted.

McLaughlin et al (2017) has identified that victims of sexual harassment who resign their jobs may take up lower paying jobs or jobs to which they are less well-suited.⁶³ Changing jobs often has a negative impact on long-term financial outcomes, particularly when this instability occurs early in a person’s career. This may be a result of a loss of firm- or industry-specific human capital, and in some cases harassment targets may have trouble obtaining references from managers and co-workers.

Even where a person does not leave their job, there may be negative consequences for their career. For example, they may reduce hours or change roles within their organisation in order to avoid the perpetrator.⁶⁴ Women who experienced sexual harassment report adjusting their work habits and withdrawing physically or interpersonally from their departments, colleagues, and fields. Some also cease contact with collaborators and mentors, avoid non-required interactions with peers, and stop attending scientific and professional gatherings, all of which have negative long-term impacts on their careers. Some victims may also face retaliation within their job.⁶⁵

Cortina & Magley (2003) reported that victims who spoke up about mistreatment and subsequently experienced retaliation reported the highest levels of job dissatisfaction, job stress, and organisational withdrawal, which could translate to lower productivity. However, victims who spoke up and did not experience retaliation reported better job-related outcomes than victims who remained silent.⁶⁶

Finally, workplace sexual harassment, or the prospect of harassment, may influence which jobs people take in the first place. For example, medical students who were exposed to gender discrimination and sexual harassment during their undergraduate studies have reported that this influenced their choice of residency program and speciality choice.⁶⁷

3.2.4 Manager time

The AHRC survey identified that 10% of cases of workplace sexual harassment resulted in a formal report or complaint being made to a direct manager or supervisor. These complaints reduce the productivity of the individual⁶⁸ – see Section 3.2.2 – and also impose an opportunity cost on the manager/supervisor from handling the complaint. For each impact category, the proportion of cases in each category that resulted in a complaint being made to a manager/supervisor are shown in Table 3.7. Category 2 and Category 3 both reported approximately 10% of cases lead to a complaint being made, compared to half this rate (5.3%) in Category 1, and double this rate (21.1%) in Category 4.

Table 3.7 Proportion of cases resulting in complaints to manager/supervisor, for each impact category

	Category 1	Category 2	Category 3	Category 4
Proportion of cases (%)	5.3%	9.9%	10.4%	21.1%

⁶³ McLaughlin, H., Uggen, C., & Blackstone, A. (2017). The Economic and Career Effects of Sexual Harassment on Working Women. *Gender & Society*, 31(3), 333–358.

⁶⁴ Ibid.

⁶⁵ Lindquist, C., & McKay, T. (2018). *Sexual harassment experiences and consequences for women faculty in science, engineering, and medicine*. Research Triangle Park, NC: RTI Press.

⁶⁶ Lilia M. Cortina, Vicki J. Magley. Raising Voice, Risking Retaliation: Events Following Interpersonal Mistreatment in the Workplace *Journal of Occupational Health Psychology* 2003, Vol. 8, No. 4, 247–265

⁶⁷ Stratton, T. D., McLaughlin, M. A., Witte, F. M., Fosson, S. E., & Nora, L. M. (2005). Does students' exposure to gender discrimination and sexual harassment in medical school affect specialty choice and residency program selection?. *Academic Medicine*, 80(4), 400-408.

⁶⁸ Opportunity costs for victims were captured in the estimated impact on presenteeism. Costs beyond this – for example, a victim spending leisure time preparing a complaint – were not able to be captured with the available data.

Source: Deloitte Access Economics analysis of AHRC 2018 survey data.

While no literature has been identified that has estimated the time taken for managers/supervisors to address complaints of workplace sexual harassment, Sheehan et al (2001) estimated the opportunity cost in Australia for a case of workplace bullying to be \$1,440 in 2001 dollars.⁶⁹ This was used as a proxy for workplace sexual harassment, and updated to approximately \$2,500 in 2018 using historical wage price index data. This opportunity cost of manager time is borne by the employer. Associated costs for bystanders and co-workers – for example, if a manager sought input from other team members who may have observed the harassment – was not included as no information on these time costs were identified.

There are other costs to business from responding to staff complaints, such as the costs of hiring external advisers – for example legal counsel, or human resources specialists. There may also be additional complexities for national businesses due to jurisdictional differences in legal frameworks, such as the responsibilities of state and Federal anti-discrimination agencies, and workers compensation legislation. These costs were not included in the model due to limitations in the available evidence. However, anecdotal evidence from employer groups suggests that these costs may be a significant burden on business. Note that these costs are not productivity costs, but are classified as “other costs” – see Section 3.3.

3.3 Other costs

There are a number of other costs from workplace sexual harassment that were included in the model:

- Health system usage by victims of workplace sexual harassment.
- Investigations by the AHRC and state-based commissions into workplace sexual harassment.
- Compensation for victims of workplace sexual harassment.
- Justice system costs (for example, legal representation costs, court costs, and police costs).
- The deadweight losses associated with government expenditure, lost taxation revenue, and increased welfare payments.

Many of these costs, such as spending on healthcare, or legal fees, could be considered as increasing economic activity. However, spending on these services represents a sub-optimal use of money, and in the absence of workplace sexual harassment this money would have been spent on other goods and services.

3.3.1 Health system costs

Workplace sexual harassment can be detrimental to the physical and mental health of people who have been harassed. There are a variety of health system costs that can be attributed to workplace sexual harassment. The model included:

- Costs of GPs.
- Costs of other specialists (e.g. psychologists).
- Medications prescribed to victims due to their experience of harassment.
- Costs of allied health professionals such as counsellors.

The AHRC survey asks respondents to identify where they sought help from, including a counsellor or psychologist. Additionally, some respondents identified that they sought help from a doctor, GP or nurse. These options were not presented to respondents, but some respondents included a GP in ‘other’. As such, the reported proportion of people visiting a GP is likely to be underestimated.

Table 3.8 shows the proportion of cases that resulted in a visit to a GP, and to a counsellor or psychologist. Consistent with the approach used for the rate of employment termination for perpetrators, the rate of GP visits was applied equally across all categories and is likely to underestimate the rate of GP visits.

⁶⁹ Sheehan, M. et al. (2001). A model for assessing the impacts and costs of workplace bullying. Standing Conference on Organisational Symbolism, Trinity College, Dublin, vol. 30.

Table 3.8 Health system utilisation for each case of workplace sexual harassment, for each impact category

	Category 1	Category 2	Category 3	Category 4
Visit to GP (%)	0.73%	0.73%	0.73%	0.73%
Visit to counsellor or psychologist (%)	1.06%	1.42%	5.12%	21.05%

Source: Deloitte Access Economics analysis of AHRC 2018 survey data.

The results from the AHRC survey were combined with results from the Bettering the Evaluation and Care of Health (BEACH) dataset,⁷⁰ which records visits to GPs where the primary issue was related to mental health concerns. The BEACH dataset (1998-2016) was a survey of GPs in Australia that records characteristics of approximately 100,000 consultations each year.

For each mental health-related visit, the 2015-16 BEACH dataset records subsequent referrals and medications that were dispensed. The most recent data show that 9.3% of visits resulted in a referral to a psychologist, and 2.7% to psychiatrists. The model assumed that each person followed through on the referral, and had three visits to the referred practitioner.

For visits to a "counsellor/psychologist", as recorded in the AHRC survey, the number of visits to psychologists (from the BEACH data) were subtracted from this amount, which provided the number of visits to counsellors. An average cost per visit to a counsellor was estimated to be \$185, based on the mid-range of average costs⁷¹, and there were assumed to be three visits.

Healthcare costs were borne by individuals, the Commonwealth Government, and employers. Average Commonwealth Government rebates were sourced from item-specific rebates the Medicare Benefits Schedule, while patient out-of-pocket payments were estimated using Medicare Benefits Schedule Broad Type of Service data. Employer costs were limited to counsellors, as it was assumed these would be provided through an Employee Assistance Program, which are typically funded through employers.

The BEACH dataset also records the most commonly prescribed medications for mental health related visits. These were antidepressants (27.8% of visits), anxiolytics (9.8%), hypnotics and sedatives (9.1%), and anti-psychotics (6.6%). For these medications, the most common molecule (by number of scripts over 2017-18) was used as a proxy to represent the class of medication: escitalopram for anti-depressants, diazepam for anxiolytics, and mirtazapine for hypnotics and sedatives. Anti-psychotics were not included as it was considered unlikely that these would be prescribed for treating mental health conditions associated with workplace sexual harassment. Average patient out-of-pocket costs and Commonwealth Government contributions were sourced from Chemist Warehouse Online⁷².

Other health system costs, such as hospitalisation costs for inpatients, were not included in the model for Categories 1, 2 and 3, as they were considered to be very small for victims in these categories. For Category 4 – sexual assault – there may be some costs arising from injuries sustained during the assault. The results of the ABS' *Personal Safety Survey* show that the most common type of injury experienced by a sexual assault victim are for scratches, bruises and cuts. However, results from the *Personal Safety Survey* for the rates of more serious types of injuries – broken bones, being stabbed/shot, and miscarriages – have relative standard errors over 50%, which means they are unreliable.

Given this, results from the Australian Institute of Criminology⁷³ were used to estimate health costs for Category 4 victims. The results from the AIC analysis identified that the 28% of sexual assaults resulted in

⁷⁰ Australian Institute of Health and Welfare. 2018, *Mental health services in Australia*, available from <https://www.aihw.gov.au/getmedia/86df866c-05c5-4d44-92c8-d35c3a36f18f/Mental-health-related-service-provided-by-general-practitioners-2015-16.xlsx.aspx>

⁷¹ Ranging from \$40-\$330 per session. (<http://eap.org.au/eap-costs/>)

⁷² www.chemistwarehouse.com.au

⁷³ Smith R, Jorna P, Sweeney J, Fuller G. 2017, *Counting the costs of crime in Australia: 2011 estimate*, Australian Institute of Criminology. Available at <https://aic.gov.au/publications/rpp/rpp129>.

injury, and that the average medical costs for an injury were \$950. Inflated to 2018 dollars using historical health price data, the weighted average cost for each Category 4 case was \$300.

3.3.2 Investigations costs

For some victims of workplace sexual harassment, they may lodge a complaint with the AHRC or a jurisdictional anti-discrimination commission. To calculate these costs, the AHRC and all of the jurisdictional anti-discrimination commissions provided Deloitte Access Economics with confidential administrative data which recorded:

- the number of complaints which were accepted by the commissions, and the proportion which related to workplace sexual harassment; and
- the salary expense for staff who handled complaints for the commissions.

This information was used to calculate an average cost per complaint across all types of complaints, which was then multiplied by the number of complaints which were specific to workplace sexual harassment. It is important to note that the investigation costs that are incurred are a conservative estimate, as they do not include additional overheads for staff such as IT costs and legal counsel, and anecdotal evidence suggests that a workplace sexual harassment case is more resource intensive than the average complaint that is handled by the commissions.

For modelling purposes, the cost of addressing a complaint was borne by the Commonwealth Government (for the AHRC) or state governments (for the state-based commissions). In 2018, this was estimated to be approximately \$800,000.

The costs of investigations to other organisation such as the Fair Work Commission, or a union, were not included due to limitations in the available data.

3.3.3 Compensation for victims of workplace sexual harassment

For some cases of workplace sexual harassment, compensation may be awarded to the victim. Compensation may be paid for a variety of reasons, including for damages, pain and suffering, legal costs, to compensate for lost earnings, employment termination/redundancy, or to pay out leave entitlements. These are typically paid by the employer, however in some cases the perpetrator may be liable.

The AHRC survey identified that 17% of victims made a formal report or complaint of their experience. This could be internally (e.g. to a manager/supervisor, or to Human Resources), or externally (e.g. to the police, a union, or the AHRC). Of these victims who lodged a complaint, 5% were paid compensation by either their employer or the perpetrator. However, the survey did not record the amount of this compensation.

Charlesworth et al (2012)⁷⁴ published information on the amount of compensation⁷⁵ paid to victims of workplace sexual harassment, based on an analysis of AHRC records lodged over July-December 2009. This study identified that 35% of all complaints lodged with the AHRC resulted in compensation being paid to the victim. Per case, this was estimated to be \$14,610 in 2009 figures, which was updated to be approximately \$18,000 in 2018 using historical consumer price index data. While it is likely that the compensation paid for a Category 4 case would be larger than compensation paid for a Category 2 case, the information that was available meant that it was not possible to separately identify compensation per case for each category.

While compensation was included in the model to identify which parties bear the costs (employers and individuals), the compensation itself is a transfer between two different economic agents, and therefore not a net cost. There are also costs to businesses of holding insurance to cover the costs of discrimination claims (including workplace sexual harassment cases). The premium amount is affected by the number of claims, so these costs will be higher for employers who are required to make a claim.

3.3.4 Justice system costs

There are many ways by which a victim may progress a workplace sexual harassment complaint. Some cases of workplace sexual harassment will proceed into the justice system, with associated costs for legal

⁷⁴ Charlesworth, S., McDonald, P., Worley, A., Graham, T., and Lykhina, A. (2012). *Formal Complaints of Workplace Sexual Harassment Lodged with Australian Human Rights and Equal Opportunity Commissions: 1 July 2009 – 31 December 2009*. Adelaide: Centre for Work + Life, University of South Australia.

⁷⁵ This includes compensation paid as part of a workers compensation claim.

representation and court costs, police costs, and incarceration costs for higher impact offences such as sexual assault.

The various legal bodies, such as tribunals and different types of courts, differ in each jurisdiction. In some jurisdictions, a workplace sexual harassment case must first proceed through a tribunal before a court will hear the case. The AHRC's survey provides information on the proportion of complaints that were finalised through the courts, and/or with police involvement. As the proportion of cases which include a case that is heard by other legal bodies (such as tribunals) was not known, these costs were not included in the model.

The AHRC survey results for the proportion of cases which proceed to court are shown in Table 3.9. The survey provided unexpected results, with no Category 2 cases proceeding to court, and a greater proportion of Category 1 cases (0.35%) proceeding to court than Category 3 cases (0.24%). However, as expected the proportion of Category 4 cases proceeding to court (5.26%) was much higher than for the other categories.

Table 3.9 Justice system utilisation, for each impact category

	Category 1	Category 2	Category 3	Category 4
% of cases which proceed to court	0.35%	0.00%	0.24%	5.26%

Source: Deloitte Access Economics analysis of AHRC 2018 survey data.

The Productivity Commission's *Report on Government Services* (ROGS) was the primary source for estimating justice system costs associated with workplace sexual harassment. The average costs to government of a court case were estimated to be \$6,620 in 2017⁷⁶, based on total spending on court cases from ROGS, and data from the ABS *Recorded Crime* series which provides information on the number of cases which proceed to court.

The costs to victims of legal representation were delineated for courts which handle civil and criminal cases:

- The Productivity Commission's *Inquiry into Access to Justice Arrangements*⁷⁷ identified the average legal fees for a plaintiff in the Supreme Court to be \$59,340, in 2012-13 dollars (approximately \$65,000 in 2018). These were assumed to apply for cases in Categories 1-3, as these are civil cases and thus heard in the Supreme Court.
- The Law Institute of Victoria⁷⁸ estimated plaintiff legal fees in the County Court to be \$11,290 in 2009 (approximately \$14,000 in 2018), based on the cost of a 5-day trial. These fees were applied to Category 4 cases, as these are criminal cases and thus heard in the Country Court.⁷⁹

In each case, there would also be legal representation costs for defendants, although neither of the aforementioned studies reported on legal representation costs for defendants, and no other robust estimates of these costs were identified. Consequently, legal costs for defendants were not included in the model.

Police costs for investigations were calculated using the total expenditure on policing, with the amount of police resourcing spent on investigations (19.4%) applied to the total spending.⁸⁰ Information on the proportion of sexual assault cases and the total number of sexual assault cases (from the ABS' *Recorded Crime* series) were used to estimate the average cost of a police investigation, which was \$2,203. The average cost of a police investigation into sexual assault was applied to Category 4 only, reflective of the severity of the category.

Incarceration costs were limited to Category 4 cases, as it was considered unlikely that any cases in Category 2 and Category 3 would result in incarceration of the perpetrator. For sexual assault cases, the

⁷⁶ This was updated to 2018 using historical consumer price index data. These include all costs to government of operating the courts, including judges, facilities, other staff, etc.

⁷⁷ Productivity Commission. (2014). *Access to Justice Arrangements Vol. 1*, p.119, Australian Government, Canberra.

⁷⁸ Community Law Australia. (2012). *Unaffordable and out of reach: the problem of access to the Australian legal system*. http://www.communitylawaustralia.org.au/wp-content/uploads/2012/07/CLA_Report_Final.pdf

⁷⁹ The County Court in Victoria is similar to district courts in other jurisdictions.

⁸⁰ NSW Police Force. (2012). *Annual report 2011-12*. NSW Government, Sydney.

Australian Institute of Criminology⁸¹ has estimated that 38% of cases which proceed to court result in a guilty verdict against the perpetrator.⁸² The average incarceration costs for a sexual assault perpetrator were estimated to be \$103,295 per year, based on information from the Productivity Commission's *Report on Government Services*, which is assumed to be borne by state governments. Costs to the perpetrator – for example, forgone income while incarcerated – were not included in the model.

3.3.5 Deadweight losses

Societal inefficiencies, known as **deadweight losses**, increase when taxes are raised above the level that they would otherwise have been in the absence of workplace sexual harassment. Thus, the inclusion of deadweight losses in this analysis implicitly assumes that governments maintain a budget neutral position despite the decreased tax revenue and increased government spending due to workplace sexual harassment, for example to pay for additional health services resulting from workplace sexual harassment. This requires that governments increase taxes above what they would have been in the absence of workplace sexual harassment to:

- maintain the same amount of tax revenue despite a smaller pool of taxable income from individuals and taxable profits from businesses (see Section 3.2); and
- pay for additional government spending in areas such as health care, AHRC investigations, and the justice system as a result of workplace sexual harassment (see Sections 3.3.1, 3.3.2 and 3.3.4).

Increasing taxes above what they would otherwise have been reduces the efficiency of resource allocation within that market because it changes the relative price of those goods or services being taxed. For example, an increase in income tax rates will increase the relative price of work compared to leisure and therefore create a disincentive to work at the margin. Similarly, businesses may be discouraged from operating in Australia if company tax rates were too high.

To estimate the deadweight loss due to lost taxation revenue, taxes were assumed to be maintained by taxing individuals and companies more as necessary (to replace the lost tax, and to raise funds to cover the additional spending). Each tax in the economy imposes various burdens on the efficiency of society. Analysis by Cao et al (2015) reports the marginal burden of various Commonwealth Government taxes. These are:

- income tax: \$0.26 for every \$1 raised;
- company tax: \$0.51 for every \$1 raised;
- goods and services tax: \$0.19 for every \$1 raised; and
- state taxes impose a range of marginal burdens from taxes on gambling, insurance, motor vehicles, and payroll, and stamp duties (KPMG, 2010).

The analysis assumes that additional tax revenue to maintain a budget neutral position is raised in the same proportions from the sources of tax from which it is currently being raised. Thus, weighted by the source of tax revenue:

- Reduced income for individuals results in a 24% efficiency loss.
- Reduced income for employers results in a 51% efficiency loss.
- Welfare payments, health and other Commonwealth Government expenditure results in a 30% efficiency loss.
- State government expenditure results in a 60% efficiency loss.

The methods for calculating lost tax revenue, and the costs of most of the areas of government expenditure, have been discussed previously in Section 3. The final component that was necessary to calculate deadweight losses was the value of welfare payments paid due to unemployment from workplace sexual harassment.

For calculating the welfare benefits paid due to unemployment, results from the MSPB and the AHRC surveys were used. For victims who resigned, the MSPB survey identified that 1% of people did not have alternative employment organised prior to resigning, while the remaining 99% who resigned had arranged alternative

⁸¹ Lievore, D. (2005). *Prosecutorial decisions in adult sexual assault cases*. Canberra, Australia: Australian Institute of Criminology.

⁸² While there are many sentencing options for sexual assault offenders, incarceration is overwhelmingly the most common sentence. Costing of every sentencing option was beyond the scope of analysis for this report.

employment. The same proportion was assumed to apply for perpetrators and bystanders. Using the AHRC survey results (see Section 3.2.3), people whose employment was terminated, and the 1% of people who resigned and did not have alternative employment arranged were assumed to undergo a period of unemployment that was consistent with the national average of 51 weeks, as recorded in the ABS' *Labour Force Survey*. For modelling purposes, these people were assumed to receive Newstart payments of \$550.20 per fortnight.⁸³

3.4 Lost wellbeing

For victims of workplace sexual harassment in Category 4, the impact of sexual assault on the lost wellbeing of victims can be captured using DALYs. These are an approach developed by the World Health Organization (WHO), World Bank and Harvard University. DALYs are comprised of two components – the years of life lost due to premature death and the years of healthy life lost due to morbidity. Disability weights are assigned to various health states, where zero represents a year of perfect health and one represents death. Other health states are given a weight between zero and one to reflect the quality of life that is lost due to a particular condition. For example, a disability weight of 0.2 is interpreted as a 20% loss in the quality of life relative to perfect health for the duration of the condition.

The DALY approach has been adopted globally and in Australia by the Australian Institute of Health and Welfare. The approach is used to overcome some of the issues in relation to comparability between individuals and nations. DALYs represent a non-financial approach to valuing human life, and DALYs are enumerated in years of life.

The dollar value of DALYs can be estimated by multiplying DALYs attributable to workplace sexual harassment by the value of a statistical life year, using official inputs recommended by the Department of the Prime Minister and Cabinet.⁸⁴ The value of statistical life year is an estimate of the value society places on an anonymous year of life. Estimates of the value of a statistical life can be derived from observing the choices people make in situations where they rank or trade off various states of wellbeing (loss or gain) either against each other, or for dollar amounts. An example of this is an individual's willingness to pay for an intervention that enhances health. Another example could be an individual's willingness to accept worse health outcomes or the risk of such states. The value provided by the Department of the Prime Minister and Cabinet is an estimate of the net value of a statistical life year, which subtracts financial costs borne by individuals.

The dollar value of DALYs does not represent an economic cost *per se*, since wellbeing is not included in gross domestic product, but rather it represents a monetised estimate of the wellbeing impact experienced by victims of workplace sexual harassment.

The estimate of lost wellbeing from workplace sexual harassment was limited to high impact cases of sexual harassment – actual or attempted rape or assault – regardless of the role of the perpetrator or the duration of the harassment. Consistent with the approach Deloitte Access Economics used for estimating the value of services provided for the Gippsland Centre Against Sexual Assault (GCASA)⁸⁵, proxy inputs for anxiety were used to represent the disability weight for sexual assault. This approach has been confirmed with clinicians to broadly capture the experience of people following a sexual assault. Anxiety is widely referenced in the literature as a common response to a traumatic experience such as sexual assault. The disability weights for anxiety are specified by the WHO's Global Burden of Disease publications (Salomon et al, 2012):

- Mild anxiety disorder: 0.030
- Moderate anxiety disorder: 0.149
- Severe anxiety disorder: 0.523

Using the distribution of severity from the GCASA analysis, across all victims of sexual assault the weighted average disability weight was calculated to be 0.102. This was assumed to apply for a period of three months.

⁸³ This rate applies to singles with no children. No further details were available in the AHRC survey on whether victims had children or had a partner, which are other factors in calculating their NewStart payment.

⁸⁴ Available at https://www.pmc.gov.au/sites/default/files/publications/Value_of_Statistical_Life_guidance_note.pdf.

⁸⁵ Available at <https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-gippsland-centre-against-sexual-assault-services-analysis-211116.pdf>.

Consistent with the approach used in the GCASA analysis, mortality from suicide linked to sexual assault has been conservatively excluded from the calculations.⁸⁶

While workplace sexual harassment increases the risk of related conditions for less severe cases of harassment, the links are less strong - with paucity of robust data. For example, several studies⁸⁷ have identified an increased risk of depression for victims of workplace sexual harassment. However, these studies have not been conducted longitudinally, and as such it is difficult to robustly estimate the increased risk of depression or anxiety for lower impact categories of workplace sexual harassment.⁸⁸ To ensure a defensible and conservative estimate, the estimate of lost wellbeing was limited to actual or attempted sexual assault cases.

3.5 Sub-group analysis

The model calculated the cost of workplace sexual harassment for different sub-groups. These included:

- Gender (male/female) and age (10-year age groups from 15 to 74 years old).
- Industry classified to the Australian and New Zealand Standard Industrial Classification divisions.
- Sector: public/private
- Employer size: 1-4 employees, 5-19 employees, 19-200 employees, and 200+ employees
- Employment relationship: full-time, part-time, and casual
- CALD employees: yes and no
- Aboriginal and Torres Strait Islander employees: yes and no.
- Disability status: has a disability, does not have a disability.
- Sexual orientation: orientation other than straight/heterosexual (male and female), straight/heterosexual (male and female).
- Socioeconomic Index for Areas: quintiles 1 (most socioeconomically disadvantaged) through to 5 (most socioeconomically advantaged).

The model inputs that were varied for each sub-group were the prevalence, distribution in each impact category, and AWE. The methods for calculating each of these for each sub-group, and the model inputs, are specified in Appendix B.

3.5.1 Prevalence by group

For all groups with the exception of sector (public/private), the prevalence and severity of sexual harassment within each sub group was estimated using the AHRC survey data and the impacts framework developed in Section 2.4. For example, women experience both higher rates and slightly greater impact categories of harassment than men. As the AHRC survey does not report results by public/private sector, the population has been apportioned using ABS Labour Force data, with the same impact classifications applied to both sectors.

⁸⁶ There may be a small number of deaths where the perpetrator of sexual assault kills the victim. These were not included on the basis that no victims of sexual assault in the AHRC survey had died.

⁸⁷ For example:

Friborg, M. K., Hansen, J. V., Aldrich, P. T., Folker, A. P., Kjær, S., Nielsen, M. B. D., ... & Madsen, I. E. (2017). Workplace sexual harassment and depressive symptoms: a cross-sectional multilevel analysis comparing harassment from clients or customers to harassment from other employees amongst 7603 Danish employees from 1041 organizations. *BMC public health*, 17(1), 675.

Langhout, R. D., Bergman, M. E., Cortina, L. M., Fitzgerald, L. F., Drasgow, F., & Williams, J. H. (2005). Sexual Harassment Severity: Assessing Situational and Personal Determinants and Outcomes 1. *Journal of Applied Social Psychology*, 35(5), 975-1007.

Willness, C. R., Steel, P., & Lee, K. (2007). A meta-analysis of the antecedents and consequences of workplace sexual harassment. *Personnel psychology*, 60(1), 127-162.

⁸⁸ Cross-sectional studies (while more common) do not actually establish a cause and effect relationship between workplace sexual harassment and mental health conditions. Longitudinal studies track a group of people known to have been harassed, to determine the odds ratio (i.e. change in risk) of developing a mental health condition. These types of studies are preferred to establish causal pathways.

3.5.2 Costs by group

In the model, only productivity costs are able to be varied by group. While in reality, there may be differences in other costs (for example, if different groups report harassment at different rates or use the health system at different rates), the number of respondents in the survey were too low to vary these other costs by group.

AWE estimates were based on ABS data (6302.0 – Average Weekly Earnings, Australia) for May 2018, providing a mid-year estimate for 2018. Where the required data were not available from this series, data from 6306.0 Employee Earnings and Hours, Australia (May 2016), the 2016 Census, and 6310.0 Employee Earnings, Benefits and Trade Union Membership, Australia (June 2013), and estimates from academic literature, have been used. A description of each of these sources and the methodology used to estimate AWE for each group is at Appendix B, which also contains detailed AWE estimates used for each group.

3.5.3 Impacts on vulnerable workers

The prevalence, nature and impact of workplace sexual harassment is generally more severe for vulnerable workers. While the model included prevalence rates for casual workers and workers from a CALD background, this group may be harder to survey and thus may be underrepresented in the AHRC survey results. The experience of vulnerable workers is discussed below, and it is expected that capturing these effects would increase the costs of sexual harassment.

A study of working Australians by Lamontagne (2009) found that workers who had precarious work⁸⁹ or were self-employed were between three and five times more likely to be the victim of unwanted sexual advances at work. The study also found that workers on a limited tenure were more at risk, no matter their position within the organisation. People in this group are much less likely to report workplace sexual harassment for fear of losing their jobs.⁹⁰

Foreign or migrant workers, and workers in private households or other unregulated environments, are more vulnerable to sexual harassment. Welsh et al. (2006) discuss this phenomenon in a Canadian context, finding that migrant domestic workers in Canada have limited escape or recourse when facing sexual harassment as they are live-in workers and rely on the sponsorship of their employer to remain in the country. This also demonstrates the difficulty of dealing with sexual harassment for domestic workers, where there is no formal mechanism for their complaints.⁹¹

⁸⁹ Precarious work is defined in the Lamontagne study as “work arrangements characterised by instability, lack of protections, insecurity and social and economic vulnerability.”

⁹⁰ LaMontagne, A. D., Smith, P. M., Louie, A. M., Quinlan, M., Shoveller, J., & Ostry, A. S. (2009). Unwanted sexual advances at work: Variations by employment arrangement in a sample of working Australians. *Australian and New Zealand journal of public health*, 33(2), 173-179.

⁹¹ Welsh, S., Carr, J., MacQuarrie, B., & Huntley, A. (2006). “I’m Not Thinking of It as Sexual Harassment” Understanding Harassment across Race and Citizenship. *Gender & Society*, 20(1), 87-107.

4 Results

This section presents the results from the modelling, which includes:

- The cost of workplace sexual harassment in 2018
- The future cost of workplace sexual harassment that occurs in 2018
- The cost of workplace sexual harassment for each of the sub-groups.

The section also discusses the limitations in the data and evidence that were used, and how this impacts on the results.

4.1 The economic costs of workplace sexual harassment

Table 4.1 shows the costs of workplace sexual harassment in 2018, and also the future costs of workplace sexual harassment that occur in 2018 which were able to be captured in the model. As noted in Section 3, most costs from workplace sexual harassment that were included in the model do not extend beyond the year in which they occur. As such, the majority of costs in 2018 relate to workplace sexual harassment that has occurred in 2018. Similarly, most of the future cost of workplace sexual harassment that occurs in 2018 does not extend to 2019.

The headline results from the model, shown in Table 4.1 and Table 4.2, are calculated as the aggregate cost of each age and gender group that were calculated in the model. Costs for each sub-group are presented in Section 4.2.

Table 4.1 Costs of workplace sexual harassment

Component	Cost in 2018 (\$m)	Cost per person in 2018 (\$)	Future cost (\$m)	Future cost per person (\$)
Productivity	2,622.2	1,053	2,630.6	1,053
Absenteeism	741.8	297	741.8	297
Presenteeism	426.4	171	426.4	171
Staff turnover	830.6	336	838.9	336
Manager time	623.4	250	623.4	250
Other costs	936.5	375	936.7	375
GPs, psychologists, psychiatrists, counsellors	48.0	19	48.0	19
Injuries	15.4	6	15.4	6
Medication	0.0	0	0.0	0
AHRC/jurisdictional investigations	0.8	0	0.8	0
Individual legal fees	290.4	116	290.4	116
Government justice system costs	158.4	63	158.4	63
Deadweight losses	423.5	170	423.7	170

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

Table 4.2 Costs of workplace sexual harassment in 2018, by impact category

Category	Productivity costs (\$m)	Other costs (\$m)	Productivity costs per person (\$)	Other costs per person (\$)
Category 1	144.8	120.0	393	325
Category 2	690.0	99.7	683	99
Category 3	1,520.0	411.1	1,422	384
Category 4	267.4	305.7	5,345	6,110
Total	2,622.2	936.5	1,053	375

Source: Deloitte Access Economics analysis. Lost wellbeing is reported separately as the costs could only be attributed to Category 4 victims.

In 2018, workplace sexual harassment is estimated to impose \$2.62 billion in lost productivity, which represents the loss of gross domestic product imposed by workplace sexual harassment. This figure increases slightly (\$2.63 billion) on a future costs basis, reflecting natural increases in the workforce between 2017 and 2018 due to factors such as population growth. However, the per person costs remain constant.

Category 3 represented the largest share of total productivity costs (\$1.52 billion). On a per person basis, each case of workplace sexual harassment reduces the size of the economy by \$1,053, ranging from \$393 in Category 1 through to \$5,345 in Category 4.

The largest component of lost productivity are the costs of staff turnover – victims, perpetrators and bystanders who have their employment terminated or resign – which represent \$830.6 million in lost productivity, or \$336 per victim. On average, in almost 50% of Category 4 cases somebody associated with the case will leave the organisation, which reduces individual income and imposes costs on the organisation to find, hire and train a replacement worker.

The next largest costs are from short-term absences from work (“absenteeism”, \$741.8 million), which range from less than one hour for a Category 1 case, through to 36 hours for a Category 4 case. The opportunity cost of manager time to respond to complaints is \$623.4 million. While few employees lodge a complaint (5% for Category 1, through to over 20% for Category 4), the estimated opportunity cost of each complaint is over \$2,000. Reduced productivity while at work (“presenteeism”) imposes costs of \$426.4 million, due to reductions in productivity which range from 2% for 3 days for Category 1, through to almost 13% for 13 weeks in Category 4.

The other costs (\$936.5 million, or \$375 per victim) were primarily driven by the deadweight losses, which represent the lost societal inefficiencies that arise from increased government spending on welfare payments, reduced tax revenue from individuals and companies, spending on the justice system, and healthcare expenditure. The largest DWL arises through government replacing the lost company taxes.

The health costs due to workplace sexual harassment were relatively small compared to the productivity losses, at only \$25 per person. This is likely due to the phrasing of questions in the AHRC survey, which did not directly ask victims whether they had visited a GP, with respondents having to proactively identify whether they had visited the GP. There was also a low rate of victims seeking help from a counsellor/psychologist, with only 1% of Category 1 and Category 2 victims seeking assistance from this source, which rose to 5% for Category 3 and 21% for Category 4. On a per person basis, costs were highest in Category 4 due to the increased use of counsellor/psychologist services, and the costs of injuries from sexual assault.

The final cost component – lost wellbeing – was limited to Category 4 cases only. In total, this imposed costs of \$249.6 million, or \$4,989 per victim in this category.

Table 4.3 shows how the economic cost of workplace sexual harassment is shared by different groups. The largest productivity-related costs were imposed on employers (\$1,840.1 million), which is driven by turnover costs, as well as friction costs associated with short-term absences from work, and manager time spent responding to complaints. Government loses \$611.6 million in taxes through reduced individual and company taxes.

The largest sources of other costs are the deadweight losses (\$423.5 million), which are incurred by society. The other major source of costs in this category are costs to government for courts, jails and police; and legal fees for individuals.

Table 4.3 Economic costs of workplace sexual harassment in 2018, by payer

	Individuals (\$m)	Employers (\$m)	Government (\$m)	Society (\$m)	Total (\$m)
Productivity	170.5	1,840.1	611.6	-	2,622.2
Other costs	103.5	134.3	275.3	423.5	936.5
Lost wellbeing*	249.6	-	-	-	249.6

Source: Deloitte Access Economics analysis. Note: * lost wellbeing was limited to Category 4 cases only as outlined in Chapter 3-

4.2 Sub-group analysis

The following tables present the costs of workplace sexual harassment in 2018, for each of the groups identified in Section 3.5. As discussed in Section 3, a primary driver of the productivity losses is the AWE of each sub-group. As most of the sub-groups are similar in their distribution of victims in each impact category (see Section 3.1.1), differences in AWE between the groups explain most of the differences in the per person productivity losses. This is shown in Chart 4.1, which maps the productivity losses per person and AWE for each of the sub-groups. As shown, there is a very strong positive correlation between these two variables ($R^2 = 87\%$)⁹².

Chart 4.1 Productivity losses per person compared to average weekly earnings per person



Source: Deloitte Access Economics analysis.

As shown in Table 4.4, in the age-gender sub-group the highest per person productivity losses are in the males aged 35-44 years category, however this is predominantly driven by the high AWE in this group, as the prevalence of workplace sexual harassment in this group is lower than the population average. In total terms, the highest loss of productivity is in the females aged 25-34 years age group, driven by the high rates of workplace sexual harassment in this group. This group represents the highest productivity loss despite the AWE in this group being lower than the national average.

⁹² R^2 denotes the proportion of variation in the dependent variable (in this case, productivity cost per person) that can be predicted by the independent variable (in this case, AWE). An R^2 of 1 denotes perfect correlation, while an R^2 of 0 denotes no correlation.

Comparing males and females, females accounted for \$1,468.4 million in lost productivity (56% of the total), despite the female share of prevalence being 60% of the prevalent population, due to the lower earnings in the female population.

In comparing results for other subgroups, it is important to note that variations in AWE are calculated on a population basis as reported by the ABS (not the survey population).⁹³ For this reason, to the extent that the survey population differs from the total population there may be discrepancies in total numbers when comparing different groups. To ensure consistency between estimates, the share of costs borne by each group is applied to the results in Table 4.1.

Table 4.4 Cost of workplace sexual harassment in 2018, by age and gender

	Productivity cost (\$m)	Productivity cost per person (\$)	Other costs (\$m)	Other costs per person(\$)
Male				
15-24 years	110.9	768	49.6	344
25-34 years	377.6	1,194	131.7	416
35-44 years	262.2	1,321	79.3	399
45-54 years	193.8	1,241	50.1	321
55-64 years	165.7	1,128	48.7	332
65-74 years	43.7	1,031	10.6	249
Male total	1,153.8	1,148	370.0	368
Female				
15-24 years	171.1	703	78.1	321
25-34 years	547.2	1,074	224.2	440
35-44 years	337.1	1,122	133.6	444
45-54 years	222.3	943	64.2	273
55-64 years	150.8	982	55.0	359
65-74 years	39.9	794	11.3	225
Female total	1,468.4	983	566.5	379
Overall total	2,622.2	1,053	936.5	375

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

The costs in each industry are compared in Table 4.5. The largest contributor to lost productivity is the Health Care and Social Assistance industry, which is driven by the high prevalence in this sector, as the cost per person in this sector is slightly below the population average. This may be due to wages in the sector which are also slightly below average. On a per person basis, the highest productivity loss is in the Mining industry (\$1,749 per person), driven by the high wages in this sector.

⁹³ Consistent with standard surveying methodologies, the AHRC survey results were weighted to be consistent with the age, gender and geographical distribution of the Australia population. However, the survey results were not weighted to be consistent with other sub-group variables, for example industry or SEIFA group. The implication of this is that calculating a weighted average AWE using the SEIFA-specific AWE from the ABS and the proportions of people in each SEIFA group from the AHRC survey, would give a different result to the population level AWE that is published by the ABS. This means that summing the productivity losses for each SEIFA quintile would give a different result to the headline results in Table 4.1. Thus, the share of costs borne by each group were applied to the headline results, to ensure that the components added up to the total.

Table 4.5 Cost of workplace sexual harassment in 2018, by industry

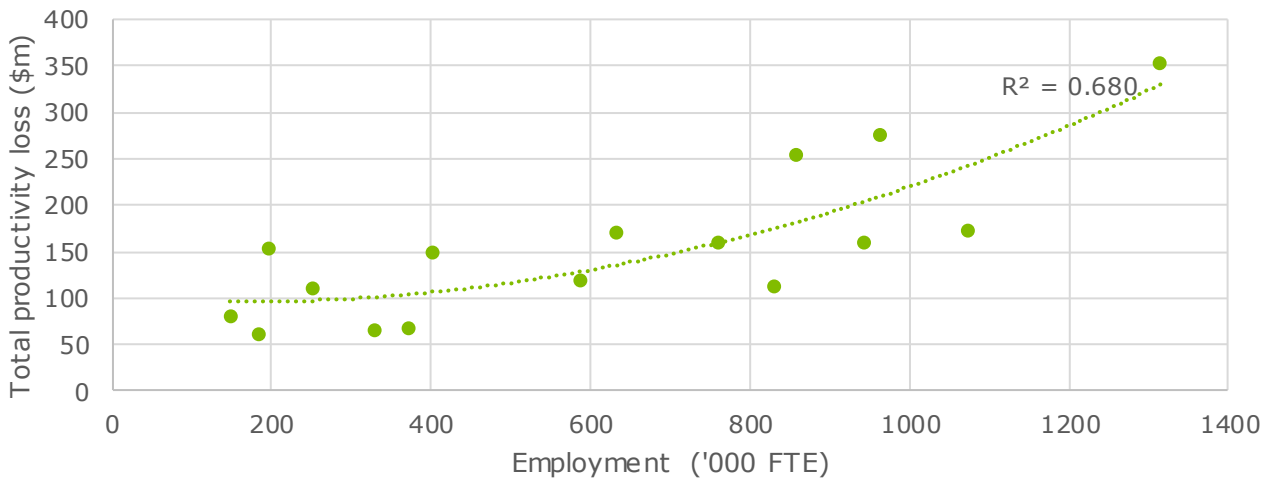
	Productivity cost (\$m)	Productivity cost per person (\$)	Other costs (\$m)	Other costs per person (\$)
Mining	110.5	1,749	20.7	327
Manufacturing	112.4	1,095	35.3	343
Electricity, Gas, Water and Waste Services	79.7	1,551	17.2	335
Construction	171.8	1,403	74.2	606
Wholesale Trade	67.5	1,140	22.7	383
Retail Trade	275.7	808	119.8	351
Accommodation and Food Services	171.6	712	91.9	381
Transport, Postal and Warehousing	118.5	1,343	41.0	465
Information Media & Telecommunications	154.3	1,288	48.4	404
Financial and Insurance Services	148.4	1,239	40.1	335
Professional, Scientific and Technical Services	159.0	1,207	46.9	356
Administrative and Support Services	66.2	838	18.2	231
Public Administration and Safety	160.4	1,069	39.0	260
Education and Training	253.6	1,019	92.5	372
Health Care and Social Assistance	353.3	1,052	117.8	351
Arts and Recreation Services	60.9	826	17.3	235
Other Services	68.4	980	32.3	462

Source: Deloitte Access Economics analysis. Note that three industries – Agriculture, Forestry and Fishing; Personal Services; and the Australian Defence Force – were excluded from the modelling as AWE data for these industries were not available. A fourth industry – Rental, Hiring and Real Estate Services – was also excluded due to the low number of survey respondents (18) in this industry. As such, the total costs across each industry will not sum to the overall total.

For each industry, Chart 4.2 and Chart 4.3 graph the total productivity losses against industry employment and industry gross value added⁹⁴, respectively. As shown in Chart 4.2, employment and total productivity loss are positively correlated ($R^2 = 67\%$). This is to be expected, as the level of employment in each industry will drive a large component of total productivity losses, in addition to AWE.

⁹⁴ Gross value added is a measure of each industry's contribution to gross domestic product.

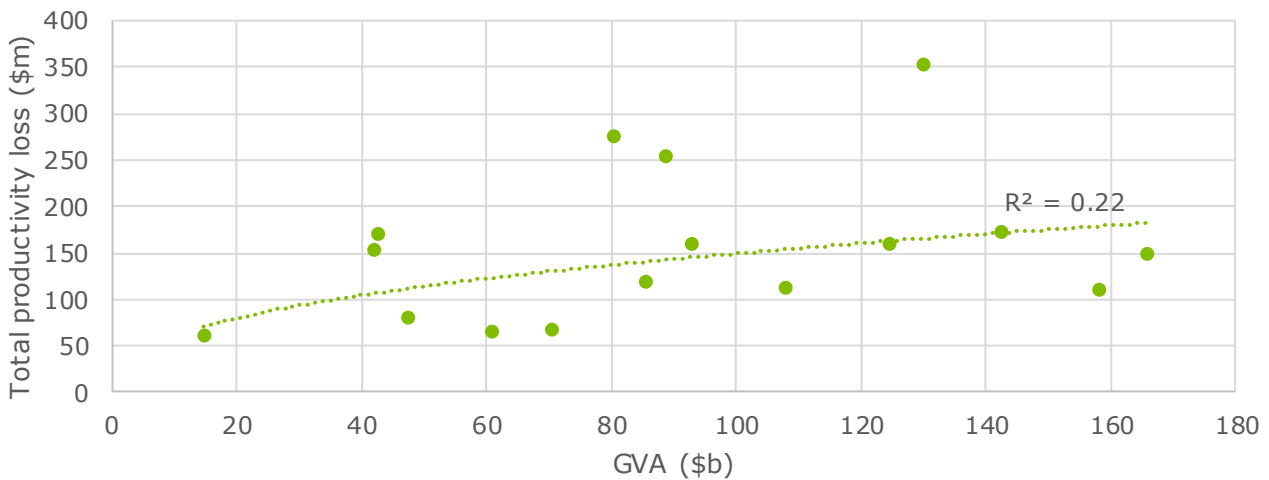
Chart 4.2 Total productivity losses compared to employment, by industry



Source: Deloitte Access Economics. Employment data were sourced from the ABS *Labour Force Survey*.

As shown in Chart 4.3, while industry value added is positively correlated with total productivity losses, the strength of the relationship is much less ($R^2 = 22\%$). The industry which was furthest from the trend line is the Healthcare and Social Assistance industry, with a relatively high productivity loss relative to its gross value added contribution.

Chart 4.3 Total productivity losses compared to gross value added, by industry



Source: Deloitte Access Economics. Data on gross value added were sourced from ABS *National Accounts* data.

Table 4.6 compares sector, employer size, and employment relationship. The private sector has larger overall productivity losses reflecting the larger share of the labour force in the private sector, however on a per person basis the productivity losses in the public sector are larger due to higher average wages. Large employers (200+ employees) had the highest per person productivity loss, and also the highest total productivity loss. However, micro employers (1-4 employees) had the highest per person “other costs”. By employment type, the highest per person productivity losses were experienced by full-time employees, which was mostly driven by higher wages in this group. This group also had the largest total productivity losses, due to its share of the labour force.

Table 4.6 Cost of workplace sexual harassment in 2018, by type of employment

	Productivity cost (\$m)	Productivity cost per person (\$)	Other costs in 2018 (\$m)	Other costs per person (\$)
Sector				
Private sector	2,228.5	1,024	809.7	372
Public sector	393.7	1,225	126.7	394
<i>Total</i>	2,622.2	1,053	936.5	375
Employer size				
1-4 employees	118.9	1,050	72.3	639
5-19 employees	467.1	910	177.2	345
20-199 employees	865.7	1,021	300.6	355
200+ employees	1,170.6	1,144	386.3	378
<i>Total</i>	2,622.2	1,053	936.5	375
Employment relationship				
Full-time employees	2,018.0	1,259	668.7	417
Part-time employees	279.6	689	129.6	320
Casual employees	324.6	663	138.2	282
<i>Total</i>	2,622.2	1,053	936.5	375

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

Table 4.7 compares results for CALD status, Aboriginal and Torres Strait Islander status, disability, and sexual orientation. None of these groups had significant differences in per person productivity losses, with the exception of straight/heterosexual females who had the lowest per person productivity losses due to the relatively lower incomes in this group. However, people with a disability had higher per person “other costs” compared to people with no disability.

Table 4.7 Cost of workplace sexual harassment in 2018, by employee characteristics

	Productivity cost (\$m)	Productivity cost per person (\$)	Other costs (\$m)	Other costs per person (\$)
CALD status				
CALD	102.7	1,054	40.2	413
Non-CALD	2,519.5	1,050	896.2	373
<i>Total</i>	<i>2,622.2</i>	<i>1,053</i>	<i>936.5</i>	<i>375</i>
Aboriginal and Torres Strait Islander status				
Yes	94.8	1,014	37.3	399
No	2,527.4	1,051	899.1	374
<i>Total</i>	<i>2,622.2</i>	<i>1,053</i>	<i>936.5</i>	<i>375</i>
Disability status				
Disability	215.1	1,061	134.8	665
No disability	2,407.1	1,049	801.6	349
<i>Total</i>	<i>2,622.2</i>	<i>1,053</i>	<i>936.5</i>	<i>375</i>
Sexual orientation				
Identifies as not straight/ heterosexual, male	168.2	1,210	61.0	439
Identifies as not straight/ heterosexual, female	180.5	1,118	60.1	372
Identifies as straight/heterosexual, male	987.1	1,140	309.1	357
Identifies as straight/heterosexual, female	1,286.5	966	506.3	380
<i>Total</i>	<i>2,622.2</i>	<i>1,053</i>	<i>936.5</i>	<i>375</i>

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

By SEIFA group (Table 4.8), the differences in per person productivity were driven by differences in AWE, with Quintile 1 having the lowest per person cost, and Quintile 5 having the highest per person cost. There were no major differences for other costs.

Table 4.8 Cost of workplace sexual harassment in 2018, by SEIFA quintile

	Productivity cost (\$m)	Productivity cost per person (\$)	Other costs (\$m)	Other costs per person (\$)
1 st quintile (lowest SEIFA group)	278.2	923	95.8	318
2 nd quintile	437.1	1,051	182.7	439
3 rd quintile	520.8	1,033	182.4	362
4 th quintile	604.5	1,041	219.0	377
5 th quintile (highest SEIFA group)	781.5	1,124	256.5	369
Total	2,622.2	1,053	936.5	375

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

The estimates of lost wellbeing for age and gender groups, and industry are shown in Table 4.9. As previously mentioned, it was only possible to estimate lost wellbeing for Category 4 cases. Consequently, the average cost per person harassed has not been provided in these tables. Of the total (\$249.6 million), females accounted for \$164.2 million (66% of the total). Females account for a higher proportion of total lost wellbeing than they do productivity or other costs as the DALY is independent of earnings. Similarly, females account for

a higher share of lost wellbeing than their share of prevalence, reflecting that they are more likely to be in Category 4.

Table 4.9 Lost wellbeing due to workplace sexual harassment in 2018, by age and gender

	Lost wellbeing (\$m)	Proportion (%)
Male		
15-24 years	13.1	5.2
25-34 years	39.4	15.8
35-44 years	19.7	7.9
45-54 years	6.6	2.6
55-64 years	6.6	2.6
65-74 years	-	-
<i>Male total</i>	<i>85.4</i>	<i>34.2</i>
Female		
15-24 years	19.7	7.9
25-34 years	78.8	31.6
35-44 years	46.0	18.4
45-54 years	6.6	2.6
55-64 years	13.1	5.2
65-74 years	-	-
<i>Female total</i>	<i>164.2</i>	<i>65.8</i>
Overall total	249.6	100.0

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

When comparing industries (Table 4.10), the construction, retail trade, and accommodation and food services industries contribute the most to lost wellbeing. While the costs by industry for productivity and other costs tend to be driven by the overall prevalence, the reduction in wellbeing is also strongly affected by the proportion of Category 4 cases.

Table 4.10 Lost wellbeing due to workplace sexual harassment in 2018, by industry

Industry	Lost wellbeing (\$m)	Proportion (%)
Mining	-	-
Manufacturing	6.5	2.6
Electricity, Gas, Water and Waste Services	-	-
Construction	32.7	13.1
Wholesale Trade	6.5	2.6
Retail Trade	32.7	13.1
Accommodation and Food Services	32.7	13.1
Transport, Postal and Warehousing	13.1	5.2
Information Media & Telecommunications	13.1	5.2
Financial and Insurance Services	6.5	2.6
Professional, Scientific and Technical Services	6.5	2.6
Administrative and Support Services	-	-
Public Administration and Safety	-	-
Education and Training	26.1	10.5
Health Care and Social Assistance	26.1	10.5
Arts and Recreation Services	-	-
Other Services	13.1	5.2

Source: Deloitte Access Economics analysis. Note that three industries – Agriculture, Forestry and Fishing; Personal Services; and the Australian Defence Force – were excluded from the modelling as AWE data for these industries were not available. A fourth industry – Rental, Hiring and Real Estate Services – was also excluded due to the low number of survey respondents (18) in this industry. As such, the total costs across each industry will not sum to the overall total.

Table 4.11 compares lost wellbeing across sector, employer size, and employment relationship. As with productivity and other costs, the private sector has larger overall lost wellbeing reflecting the larger share of the labour force in the private sector. Similarly, the results for employer size and employment type are also intuitive: the overall lost wellbeing increases with employer size and the costs are largely borne by full-time employees, also reflecting the share of the labour force for each group.

Table 4.11 Lost wellbeing due to workplace sexual harassment in 2018, by type of employment

	Lost wellbeing (\$m)	Proportion (%)
Sector		
Private sector	217.5	87.1
Public sector	32.1	12.9
<i>Total</i>	<i>249.6</i>	<i>100.0</i>
Employer size		
1-4 employees	39.4	15.8
5-19 employees	46.0	18.4
20-199 employees	72.2	28.9
200+ employees	92.0	36.9
<i>Total</i>	<i>249.6</i>	<i>100.0</i>
Employment relationship		
Full-time employees	190.5	76.3
Part-time employees	32.8	13.1
Casual employees	26.3	10.5
<i>Total</i>	<i>249.6</i>	<i>100.0</i>

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

Table 4.12 compares results for CALD status, Aboriginal and Torres Strait Islander status, disability, and sexual orientation. None of these groups had significant differences from the underlying prevalence, with the exception of people with a disability. Of total lost wellbeing, people with a disability accounted for \$72.3 million, or 29%.

Table 4.12 Lost wellbeing due to workplace sexual harassment in 2018, by employee characteristics

	Lost wellbeing (\$m)	Proportion (%)
CALD status		
CALD	13.1	5.2
Non-CALD	236.5	94.8
<i>Total</i>	<i>249.6</i>	<i>100.0</i>
Aboriginal and Torres Strait Islander status		
Yes	13.1	5.2
No	236.5	94.8
<i>Total</i>	<i>249.6</i>	<i>100.0</i>
Disability status		
Disability	72.3	29.0
No disability	177.4	71.1
<i>Total</i>	<i>249.6</i>	<i>100.0</i>
Sexual orientation		
Identifies as not straight/ heterosexual, male	19.7	7.9
Identifies as not straight/ heterosexual, female	13.1	5.2
Identifies as straight/heterosexual, male	65.7	26.3
Identifies as straight/heterosexual, female	151.1	60.5
<i>Total</i>	<i>249.6</i>	<i>100.0</i>

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

Quintile 1 accounted for the smallest proportion of total lost wellbeing as it has comparatively fewer Category 4 cases and a lower share of overall prevalence compared to the other quintiles (Table 4.13). Conversely, the lost wellbeing across the other quintiles was reasonably comparable, albeit slightly higher for Quintile 2, reflecting a slight skew towards more Category 4 cases in their distributions.

Table 4.13 Lost wellbeing due to workplace sexual harassment in 2018, by SEIFA quintile

	Lost wellbeing (\$m)	Proportion (%)
1 st quintile (lowest SEIFA group)	19.7	7.9
2 nd quintile	65.7	26.3
3 rd quintile	46.0	18.4
4 th quintile	59.1	23.7
5 th quintile (highest SEIFA group)	59.1	23.7
Total	249.6	100.0

Source: Deloitte Access Economics analysis. Totals may not add due to rounding.

5 Limitations of the analysis

As noted in Section 2, the two main sources of data for this model were the AHRC's 2018 survey, and the MSPB's 1995 survey. Every survey has limitations in regard to the size of the sample it is fielded to, the representativeness of the sample, the scope of the questions, and the way that the questions are asked. However, on balance for both of these surveys the usefulness of the survey data for this project outweighed the limitations of the data.

There were two key limitations of the ARHC survey. The first limitation related to the sub-set of respondents which some of the questions were restricted to. While the survey sample included approximately 2,500 people who had been sexually harassed in the workplace in the past five years, some of the questions were only presented to a smaller sub-sample of people who had made a formal report or complaint (n=435). This sample were asked questions relating to:

- whether the victim or their perpetrator had resigned or had their employment terminated – this question was used in calculating costs of staff turnover;
- whether the victim involved their manager/supervisor in lodging their complaint – this question was used in calculating opportunity costs of manager time; and
- whether the victim involved the AHRC, the courts, or police – this question was used in calculating other costs for the justice system.⁹⁵

There are likely to be victims who did not make a formal report or complaint, but still resigned their employment, particularly in jobs with a higher rate of casual staff. Thus, the model may underestimate some of the productivity costs, as the survey may not have fully captured all of the lost productivity results. However, it is important to note that the proportions from the AHRC survey regarding victim turnover were similar to the proportions from the MSPB survey, which captured victim turnover rates from all victims. This is discussed further in Section 3.2.3.

The AHRC survey may have also underestimated the rate of health system utilisation. In the survey, victims who had sought support or advice (n=476) were asked to nominate which parties they sought advice from. From a health system utilisation perspective, the only option presented to victims was "counsellor/psychologist". However, a small number of victims identified a GP/doctor/nurse in the "other" category. The rate at which victims reported seeking advice from a GP/doctor/nurse – 0.6% of all victims of workplace sexual harassment – seems to be low, particularly given that approximately 2% of victims were subject to actual or attempted sexual assault. It is likely that if "GP/doctor/nurse" was presented as a separate option, and if the question specifically asked victims about their interaction with the health system following the harassment, then the rate of people reporting that they had visited a GP/doctor/nurse would be higher.

In regard to the MSPB survey, the key limitations of applying the survey results to the Australian population were that the survey was fielded to US Federal Government employees, and that the data were collected approximately 20 years ago. The response to workplace sexual harassment by government employees may be different to the response to workplace sexual harassment for non-government employees.⁹⁶ The three sources of information extracted from the MSPB survey – days off from work (paid and unpaid), reduced productivity while at work, and the proportion of employees who were able to arrange alternative employment before leaving their current employment – may differ between the two sectors. For example, the lower rate of casualisation in the government sector would increase the rate of paid leave that government employees are able to take.

⁹⁵ The survey results for the question regarding complaints lodged with the AHRC did not align with the real world data supplied by the AHRC and the jurisdictional commissions. As such, the survey results for this question were not used in the model (see Section 3.3.2).

⁹⁶ The AHRC survey did not identify whether victims worked in the public or private sector. While it did identify whether victims worked in the "Public Administration and Safety" ANZSIC industry, many government employees – for example, teachers and healthcare professionals – may not identify as working in this industry.

Increased job security, coupled with the higher levels of education among government employees, would also impact on the proportion of people who were able to arrange alternative employment prior to resigning from their current employment. Similarly, the government sector is likely to have better internal protocols for handling sexual harassment complaints, which would decrease the rate at which people leave their organisation.

The second limitation of the MSPB data – that they were collected over 20 years ago – limits the applicability of the results to 2018 due to the significant changes in societal perceptions of sexual harassment, and the actions taken by victims in response to being harassed. For example, employees in 1995 may have been less likely to take leave in response to being sexually harassed, which would understate the productivity loss when applied to 2018.

In summary, the limitations of both the AHRC and the MSPB surveys likely result in the modelling presenting a conservative estimate of the cost of workplace sexual harassment. The results should be interpreted within this context, noting that both of these surveys are the first of their kind to be undertaken around the world, and that the AHRC survey was not designed for the purposes of estimating the economic costs from workplace sexual harassment.

To address some of the limitations of the analysis, Deloitte Access Economics recommends that consideration be given to capturing the following data in future surveys on workplace sexual harassment. This list includes data that would address the limitations of the surveys, as well as additional data items that were not captured in either of the surveys.

- Data from the MSPB survey in regard to days off from work, reduced productivity while at work, and arranging alternative employment before leaving their current employment, that is specific to the Australian context and not limited to US Federal Government employees.
- The costs to business of responding to employee complaints, such as the costs of hiring legal counsel and human resources advisers. Anecdotal evidence suggests that the costs for each case are a material cost to businesses.
- Broadening the sub-sample of victims who are asked questions regarding whether they left their organisation, and their use of the health system.
- Information on victim income – the survey captured information on household income, rather than individual income which is necessary for estimating productivity losses. To address this limitation, the modelling used AWE data from the ABS. It is not known whether the AHRC survey was representative in regard to the AWE of survey respondents.
- The AHRC survey captured information from victims on whether they experienced negative productivity-related outcomes such as being demoted, transferred, or having shifts changed. However, it would be useful for victims to identify the impact that these negative outcomes had on their income. Similarly, future surveys could capture information from victims on the amount by which their income level changed when changing jobs due to workplace sexual harassment.
- The costs to individuals of legal representation, the amount of compensation they received, and who paid the compensation (i.e. what share was paid by employers and by perpetrators).

The final recommendation for future data collection efforts relates to the lack of longitudinal data on the long-term effects of workplace sexual harassment. Deloitte Access Economics did not identify any longitudinal studies of workplace sexual harassment that could be included in the model.⁹⁷ This placed a significant limitation on the ability to calculate “lifetime” impacts, with the model restricted to capturing costs in the year immediately following the harassment, and no ability to estimate longer-term impacts on career progression, workforce participation, and income. It was also not possible to include lost wellbeing for categories other than Category 4, as the lack of longitudinal data have meant that it is not possible to reliably estimate the attributable fraction of conditions such as anxiety and depression that are due to workplace sexual harassment. To address these limitations, consideration could be given to including a question on workplace sexual harassment in future waves of the HILDA survey, to capture longitudinal data.

⁹⁷ The work by McLaughlin (2017) regarding future rates of financial distress was not sufficiently detailed to be included in the modelling. [McLaughlin, H., Uggen, C., & Blackstone, A. (2017). The Economic and Career Effects of Sexual Harassment on Working Women. *Gender & Society*, 31(3), 333–358]

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Appendix A Additional survey analysis

This appendix contains additional survey analysis, that is referred to in the body of the report.

A.1 Intimidation and offence

As discussed in Section 2.4, a fourth domain of victim intimidation/offence was not included in the impacts framework, as it was considered likely that the three domains – behaviour, duration and perpetrator – would influence the level of intimidation and offence that was experienced by victims. The AHRC survey collected data from respondents regarding the level of intimidation they experienced (ranked from 1-5, with 1 representing “no intimidation” and 5 representing “extreme intimidation”). Data on the level of offence experienced by victims were also collected, using the same scale from “no offence” through to “extreme offence”.

As shown in Table A.1, the intimidation and offence score increases for each impact category. These results support the exclusion of victim intimidation and offence from the impacts framework.

Table A.1 Intimidation and offence scores for each impact category

	Category 1	Category 2	Category 3	Category 4
Mean intimidation score	2.5	2.8	3.1	4.1
Mean offence score	3.0	3.3	3.6	4.0

Source: Deloitte Access Economics analysis of the AHRC survey.

The AHRC survey report also explored how the level of intimidation and offence experienced by victims influenced whether they make a formal report or complaint regarding the case. As shown in Table A.2, victims who made formal reports or complaints were more likely to report a higher level of intimidation and offence.

Table A.2 Level of intimidation and offence for respondents who made a formal report or complaint

Intimidation/ offence level	Intimidation (%)	Offence (%)
1	7	3
2	11	6
3	20	20
4	29	28
5	33	43

Source: AHRC survey.

A.2 Influence of perpetrator on reports and complaints

As discussed in Section 3.2.3, approximately 17% of victims made a formal report or complaint following the workplace sexual harassment. As shown in Table A.3, this proportion differs depending on the role of the perpetrator. Victims harassed by a non-supervisor were 24% more likely to make a formal report or complaint (21.1% of all victims), whereas victims harassed by a supervisor were 24% less likely to make a formal report or complaint (13.7% of all victims).

Table A.3 Influence of perpetrator on reports and complaints

	Perpetrator is supervisor	Perpetrator is not supervisor
Proportion of victims making formal report or complaint	13.7%	21.1%

Source: Deloitte Access Economics analysis of the AHRC survey.

A.3 Duration of case

As discussed in Section 3, the average duration of cases in the MSPB survey is shorter than for cases in the AHRC survey. The results from the two surveys are shown in Table A.4.

Table A.4 Duration of cases in AHRC and MSPB surveys

	Category 2	Category 3	Category 4
AHRC (# weeks)	22	63	38
MSPB (# weeks)	10	26	30

Source: Deloitte Access Economics analysis of the AHRC and MSBP surveys.

There are two potential reasons for the differences in these results:

- underlying differences in the nature of harassment experienced, and victim’s reaction to each case (for example, capacity to leave the organisation thus ending the harassment), in the two surveys; and
- differences in the way the questions were phrased in the two surveys.

For the second reason, the phrasing of the questions in the two surveys may have influenced the duration that was reported for each case. In the MSPB survey, respondents were provided with the following ranges:

- Less than a week
- 1-4 weeks
- 1-3 months
- 4-6 months
- More than 6 months.

In the AHRC survey, respondents were provided with the following ranges:

- Less than 1 month
- 1-3 months
- 4-6 months
- 7-12 months
- 1-2 years.
- More than 2 years.

For modelling purposes, the midpoint of each range was used, with 50% added to the open ended ranges. For example, in the MSPB survey “less than 1 week” was coded as 0.5 weeks, “1-4” weeks was coded as 2.5 weeks, and so on. At the other end of the scale, “more than 6 months” was coded as 9 months for the MSPB survey results, and “more than 2 years” was coded as 3 years for the AHRC survey results.

The MSPB survey provided respondents with greater granularity for shorter duration cases, while the AHRC survey provided respondents with greater granularity for longer duration cases. The combined effect of this is that the MSPB durations will be shorter compared to the AHRC durations, even if the true durations in each survey were the same.

To remove the effect of the answer options on the duration, the answer options from each survey were collapsed to the following common categories: less than 1 month; 1-3 months; 4-6 months; and more than 6 months. Using these common categories, the weighted average duration from each survey were similar:

17.9 weeks for the MSPB cases, and 18.4 weeks for the AHRC cases. Thus, there were no material differences in duration of cases between the two surveys once the effect of the different answer options was removed.

Appendix B Detailed methodology and model inputs

This appendix contains detailed notes on the methods for calculating the prevalence and AWE inputs for each of the sub-groups (Table B.1), and the inputs for each sub-group that were used in the model (Table B.2). Note that due to the variety of sources that were used for calculating the AWE inputs, there were some minor discrepancies (<2%) in the weighted average AWE for each sub-group. To account for this, all AWE inputs were rebased to a consistent weighted average (\$1,244/week in 2018).

Note that the AHRC did not provide information on whether the victim was in the public or private sector. To account for this:

- The distribution of workplace sexual harassment into each sector was aligned with ABS *Labour Force* data.
- The prevalence rate for each sector was the same as for the population average.
- The impact category distribution within each sector was the same as for the population average.

Table B.1 Methodological notes for calculating of AWE inputs

Characteristic	Detailed source	Methodology	Limitations
Industry, Sector (public/private)	ABS (2018). 6302.0 Average Weekly Earnings, Australia, May 2018 – Average weekly cash earnings.	Employer survey of average weekly cash (AWCE) earnings. Cash earnings are gross (pre-tax) current and regular payments in cash to employees for work done, inclusive of salary sacrifice amounts. AWCE has been used rather than AWE to capture the complete definition of income and improve comparability ABS 6306.0 data. Total cash earnings (rather than ordinary time cash earnings) includes superannuation. This is considered appropriate for the human capital approach taken in this modelling.	Using aggregate numbers may lead to discrepancies in totals to the extent that the AHRC survey is not representative of the employment mix of the general population.
Gender, Employment relationship (full time/part time/casual), Employer size	ABS (2017). 6306.0 Employee Earnings and Hours, Australia, May 2016 - Average weekly total cash earnings.	Employer survey of AWCE. Rebased to May 2018 prices using 6302.0 AWE.	Using aggregate numbers may lead to discrepancies in totals to the extent that the AHRC survey is not representative of the employment mix of the general population. These data are now two years old.
Age by gender	ABS (2017). ABS 6310.0 Employee Earnings, Benefits and Trade Union Membership, June 2013	Employer survey of mean weekly earnings in main job, by 5 year age groups. Converted from 5 years age groups to AHRC categories by taking the midpoint of 5 year categories. Rebased to May 2018 prices using 6302.0 AWE.	These data are from 2013 and is now five years out of date. However, it is the most recent data that includes five-year age groups.
Disability status, Aboriginal and Torres Strait Islander status, CALD status, SEIFA	ABS (2017). 2016 Census - Employment, Income and Education - INCP Total Personal Income (weekly).	Household survey of total income from all sources (in ranges) a person usually receives each week. Relative income of each group is calculated relative to the total population, and rebased to May 2018 prices using 6302.0 AWE. Only the population working at least 1 hour per week is included, and non-responses are excluded from analysis. As income ranges are provided, the midpoint of each range is used, with the top income range assumed to be the lower bound of \$3000/week. Negative and nil incomes are excluded. 'Not stated' responses have been excluded.	Income and earnings are not directly comparable, as income includes non-wage and salary income. However, as detailed data are not available on earnings for these groups this provides the best proxy measure for distributional analysis. Household surveys tend to be less reliable, as people may not have accurate recall of their income. Data are reported in ranges, and a midpoint value is assumed. This may introduce inaccuracies, particularly for negative income and income over the upper bound of \$3000/week.
Sexual orientation	La Nauze (2015) – Percentage change relative to earnings of same gender.	Analysis of HILDA data measuring the variation in income relative to same gender. The baseline model has been used (does not control for factors including industry and personality factors).	Percentage reduction is applied to total population, rather than only the straight/heterosexual population.

Table B.2 Prevalence and AWE for each sub-group

	Prevalence, 2018 ('000)	AWE (\$)	Number of survey respondents
Age and gender group			
15-24 years, male	144	699	136
25-34 years, male	316	1,415	295
35-44 years, male	199	1,773	184
45-54 years, male	156	1,796	147
55-64 years, male	147	1,622	124
65-74 years, male	42	1,223	37
15-24 years, female	244	570	224
25-34 years, female	510	1,107	464
35-44 years, female	300	1,128	262
45-54 years, female	236	1,157	200
55-64 years, female	154	1,077	137
65-74 years, female	50	840	51
Industry			
Mining	63	2,664	57
Manufacturing	103	1,322	104
Electricity, Gas, Water and Waste Services	51	1,921	45
Construction	122	1,515	121
Wholesale Trade	59	1,393	56
Retail Trade	341	745	339
Accommodation and Food Services	241	535	225
Transport, Postal and Warehousing	88	1,560	91
Information Media and Telecommunications	120	1,661	120
Financial and Insurance Services	120	1,636	108
Professional, Scientific and Technical Services	132	1,611	119
Administrative and Support Services	79	1,071	73
Public Administration and Safety	150	1,539	143
Education and Training	249	1,235	246
Health Care and Social Assistance	336	1,208	345
Arts and Recreation Services	74	919	77
Other Services	70	965	69
Sector			
Private sector	2176	1,176	N/A
Public sector	321	1,530	N/A
Employer size			
Under 20 employees	113	922	122
5-19 employees	514	922	498
20-199 employees	848	1,189	848

	Prevalence, 2018 ('000)	AWE (\$)	Number of survey respondents
200+ employees	1,023	1,372	1,000
Employment relationship			
Full-time employees	1,602	1,640	1,587
Part-time employees	406	641	411
Casual employees	490	591	485
CALD status			
CALD	97	1,160	240
Non-CALD	2,400	1,266	7,350
Aboriginal and Torres Strait Islander status			
Aboriginal and Torres Strait Islander	93	827	240
Non-Aboriginal and Torres Strait Islander	2,404	1,247	7,493
Disability status			
Has a disability	203	827	7,262
Does not have a disability	2,295	1,247	483
Sexual orientation			
Identifies as not straight/ heterosexual, male	139	1,341	129
Identifies as not straight/ heterosexual, female	866	1,208	148
Identifies as straight/heterosexual, male	161	1,478	778
Identifies as straight/heterosexual, female	1,332	1,015	1,175
SEIFA quintile			
1 st	302	1,020	919
2 nd	416	1,111	1,236
3 rd	504	1,171	1,580
4 th	581	1,263	1,778
5 th	695	1,464	2,223

Table B.3 Impact category distribution for each sub-group

	Category 1 (%)	Category 2 (%)	Category 3 (%)	Category 4 (%)
Age and gender group				
15-24 years, male	17.4%	36.7%	44.0%	1.8%
25-34 years, male	15.1%	41.0%	41.4%	2.5%
35-44 years, male	16.7%	43.3%	38.0%	2.0%
45-54 years, male	15.3%	47.5%	36.4%	0.8%
55-64 years, male	23.4%	39.6%	36.0%	0.9%
65-74 years, male	6.3%	46.9%	46.9%	0.0%
15-24 years, female	14.7%	38.6%	45.1%	1.6%
25-34 years, female	13.8%	38.2%	44.9%	3.1%
35-44 years, female	11.0%	37.0%	48.9%	3.1%
45-54 years, female	13.5%	47.2%	38.8%	0.6%

	Category 1 (%)	Category 2 (%)	Category 3 (%)	Category 4 (%)
55-64 years, female	16.4%	37.9%	44.0%	1.7%
65-74 years, female	10.5%	47.4%	42.1%	0.0%
Industry				
Mining	8.3%	47.9%	43.8%	0.0%
Manufacturing	15.4%	39.7%	43.6%	1.3%
Electricity, Gas, Water and Waste Services	7.7%	33.3%	59.0%	0.0%
Construction	19.4%	34.4%	40.9%	5.4%
Wholesale Trade	13.3%	46.7%	37.8%	2.2%
Retail Trade	14.7%	37.1%	46.3%	1.9%
Accommodation and Food Services	12.0%	37.2%	48.1%	2.7%
Transport, Postal and Warehousing	14.9%	37.3%	44.8%	3.0%
Information Media and Telecommunications	15.4%	44.0%	38.5%	2.2%
Financial and Insurance Services	12.1%	46.2%	40.7%	1.1%
Professional, Scientific and Technical Services	22.0%	34.0%	43.0%	1.0%
Administrative and Support Services	16.7%	48.3%	35.0%	0.0%
Public Administration and Safety	16.7%	46.5%	36.8%	0.0%
Education and Training	18.0%	43.9%	36.0%	2.1%
Health Care and Social Assistance	13.7%	40.8%	43.9%	1.6%
Arts and Recreation Services	12.5%	44.6%	42.9%	0.0%
Other Services	15.1%	39.6%	41.5%	3.8%
Sector				
Private sector	14.8%	40.4%	42.8%	2.0%
Public sector	14.8%	40.4%	42.8%	2.0%
Employer size				
Under 20 employees	15.1%	39.5%	38.4%	7.0%
5-19 employees	11.5%	41.3%	45.4%	1.8%
20-199 employees	15.5%	41.5%	41.3%	1.7%
200+ employees	15.7%	39.3%	43.2%	1.8%
Employment relationship				
Full-time employees	15.0%	41.0%	41.7%	2.4%
Part-time employees	16.2%	38.3%	43.8%	1.6%
Casual employees	12.9%	40.3%	45.7%	1.1%
CALD status				
CALD	12.2%	39.2%	45.9%	2.7%
Non-CALD	14.9%	40.5%	42.7%	2.0%
Aboriginal and Torres Strait Islander status				
Aboriginal and Torres Strait Islander	5.6%	45.1%	46.5%	2.8%
Non-Aboriginal and Torres Strait Islander	15.1%	40.3%	42.7%	2.0%
Disability status				

	Category 1 (%)	Category 2 (%)	Category 3 (%)	Category 4 (%)
Has a disability	11.0%	30.5%	51.3%	7.1%
Does not have a disability	15.1%	41.3%	42.1%	1.5%
Sexual orientation				
Identifies as not straight/ heterosexual, male	12.4%	39.0%	45.7%	2.9%
Identifies as not straight/ heterosexual, female	11.5%	35.2%	51.6%	1.6%
Identifies as straight/heterosexual, male	17.3%	42.4%	38.8%	1.5%
Identifies as straight/heterosexual, female	13.7%	40.3%	43.7%	2.3%
SEIFA quintile				
1 st	10.9%	42.8%	45.0%	1.3%
2 nd	13.0%	38.3%	45.6%	3.2%
3 rd	11.7%	40.7%	45.7%	1.8%
4 th	17.0%	40.4%	40.6%	2.0%
5 th	17.8%	40.5%	40.0%	1.7%

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