

# Polling - Bushfire crisis and concern about climate change

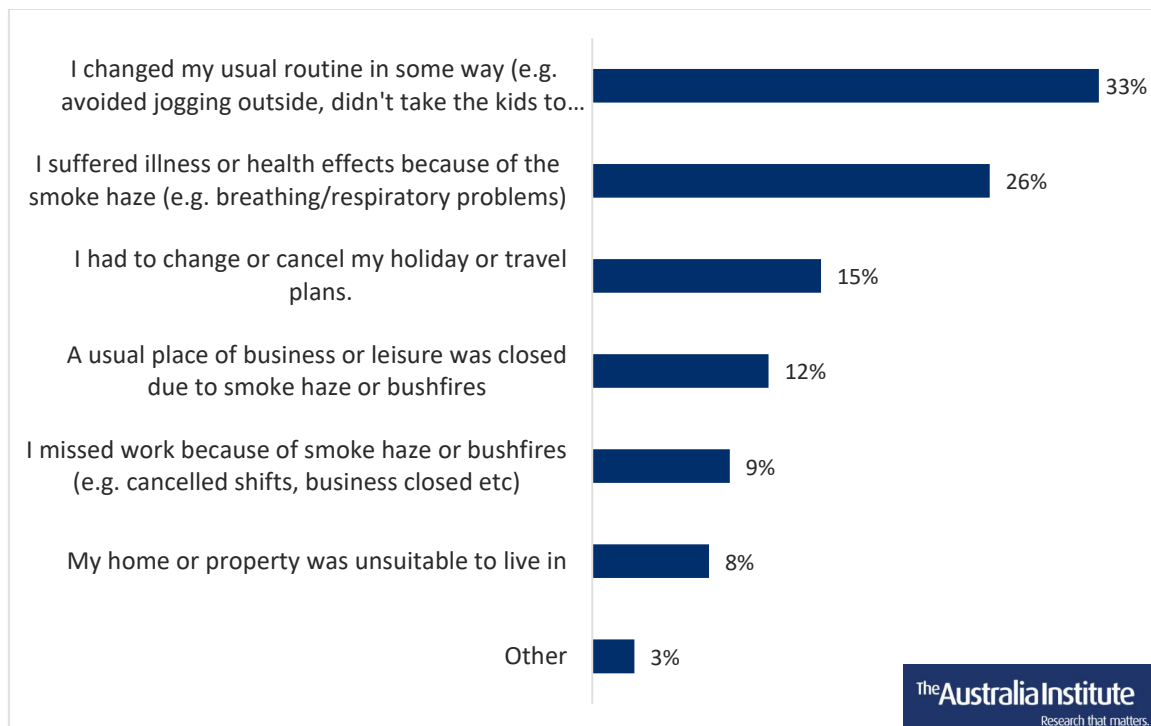
*January 2020*

The Australia Institute's *Climate of the Nation* is the longest running research project on attitudes towards climate change in Australia. In January 2020, the Australia Institute commissioned a bushfire update. A nationally representative survey of over 1000 Australians was conducted by YouGov from 8-12 January 2020. The survey asked about direct experience of bushfires and smoke over the last three months, and about climate change concerns and attitudes. Note the crisis continued following the poll.

## Impacts from bushfires and smoke

The survey found most Australians, 57%, had experienced some kind of direct impact from the bushfires or smoke. 43% said they had not been impacted in any way.

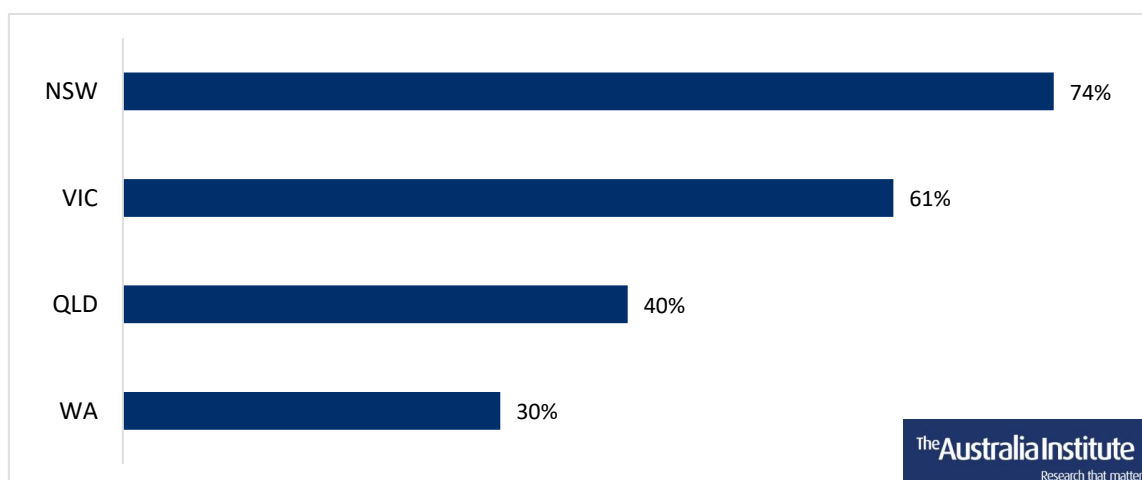
**Figure 1: Which have you experienced from bushfires or smoke in the last 3 months?**



- One in three (33%) said they had changed their usual routine in some way
- One in four (26%) said they had suffered illness or health effects because of the smoke haze (e.g. breathing/ respiratory problems)
- 15% had to change or cancel travel plans, with consequences for tourism business and jobs.
- One in eleven (9%) missed work.
- 8% said their home or property was not suitable to live in.

People living in NSW were most likely to have been impacted in some way by the fires and smoke (74%), followed by Victoria (61%). Even in WA, fires have impacted nearly one in three respondents (30%). Note the fires and smoke continued after the poll was conducted. The figures are likely now to be higher.

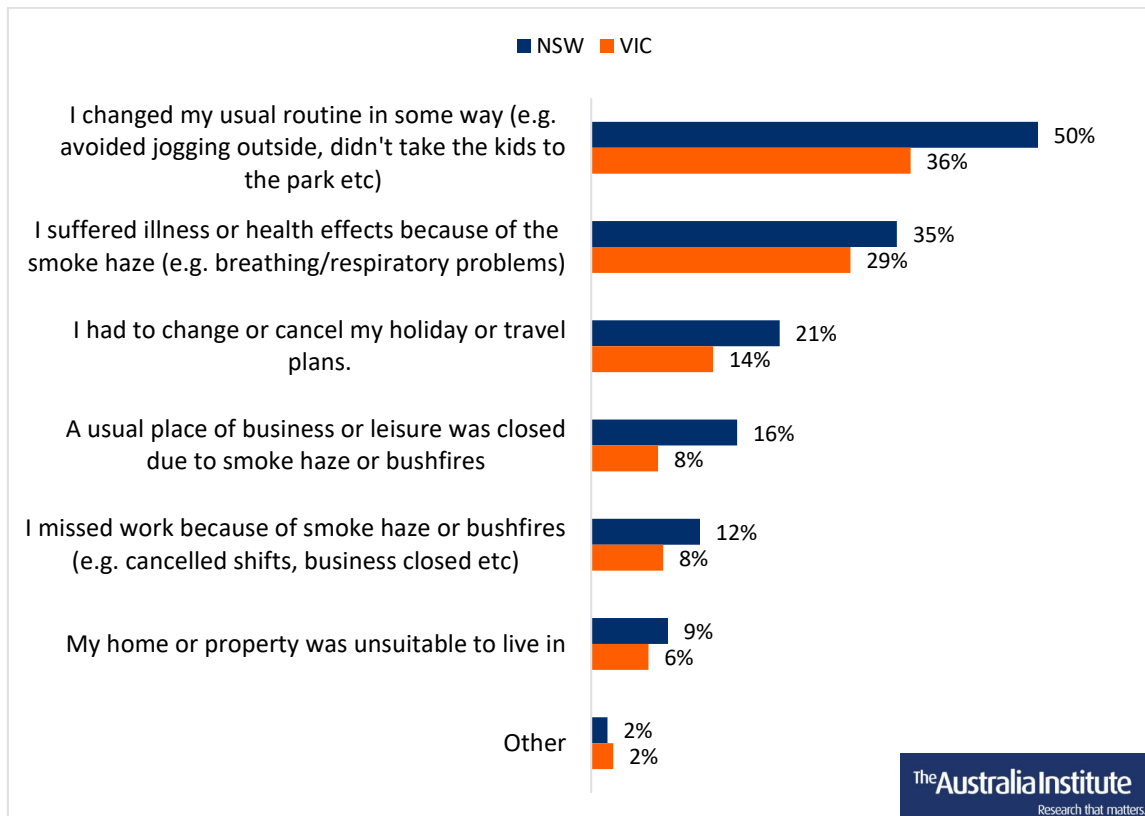
**Figure 2: Any kind of impact from the bushfires or smoke**



Those in the five largest capital cities were more likely to experience some impact (61%) compared with those outside of those cities (50%). However those outside of the five largest cities were more likely to experience multiple impacts. On many of the individual impacts, both groups were similar, including on missing work, changing travel plans and having a place of business or leisure closed.

The figure below breaks down impacts in NSW and Victoria, the most impacted states.

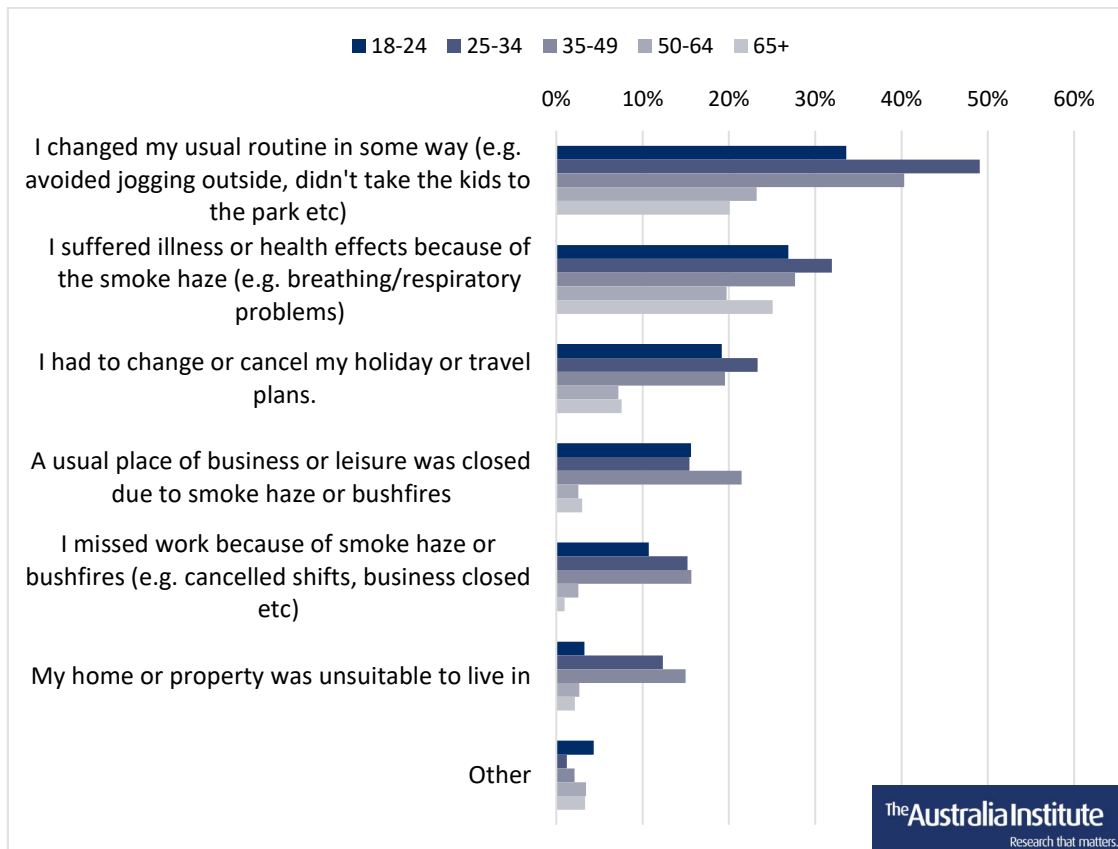
**Figure 3: Impacts experienced in NSW or Victoria from bushfires or smoke**



- Half of NSW responders (50%) and one in three in Victoria (36%) said they had changed their usual routine in some way.
- One in three living in NSW (35%) say they have experienced illness or health issues as the result of the bushfires or smoke, and more than one in four in Victoria (29%).
- One in 8 people in NSW (12%) had missed work as a result of the crisis.

As shown in the Figure below, younger people were most likely to report impacts.

**Figure 4: Direct impacts, by age group**



- Nearly half aged 25-34 and two in five aged 35-49 had to change their usual routine in some way, far higher than older groups (around one in five).
- The most likely to have a usual place of business or leisure closed were 35-49 year olds (21%). This was reported by few older people.
- The most likely to miss work were 25-34 and 35-49 year olds (15% and 16%), while 18-24 year olds were close behind (11%). Older groups were very unlikely to report this.
- There was less variation among those experiencing illness or health effects from the smoke – the highest was 25-34 year olds (32%) and the lowest were 50-64 year olds (20%). The 65+ age group was more likely to report impacts (25%) than any other impact.
- 25-34 and 35-49 year olds were most likely to say their home was unsuitable to live in (12% and 15%).

## Health impacts

These survey data can be combined with ABS data to produce rough estimates of the total number of Australians to date impacted by the bushfire crisis and smoke.

26% of those in the survey said they experienced some sort of health impacts from the smoke. The survey was restricted to adults (18 and over).

The adult population is 19.5 million, while the total population is 25.4 million.<sup>1</sup>

**An estimated 5.1 million Australian adults had health impacts from the smoke.**

In **NSW**, an estimated **2.8 million** adults had smoke related health impacts.

In **Victoria**, an estimated **1.9 million** adults had smoke related health impacts. Note the smoke escalated in Melbourne in the week after this survey was conducted.

Children are generally more vulnerable than adults to air pollution impacts. Many parents will have taken some protective action to mitigate this, although impacts are still likely to have been prevalent. The survey did not collect data on child impacts.

If we assume children experienced health impacts as often as adults, we can infer around 1.5 million children experienced health impacts as a result of the smoke.

It must be emphasised this is based on a self-assessment of any sort of health impacts. It will include a wide range, from sore throats to coughing to infections to asthmatic attacks.

The current data raise concerns and indicates the urgency of this research as well as measures to prevent exposure to smoke in the future.

Air pollution can cause both acute and chronic health problems. A small number of deaths have been linked to the smoke but more are likely to have been and to go unreported. The long-term health impacts of exposure to bushfire smoke are not well understood and require in-depth medical study.

They also illustrate the breadth of the bushfire crisis. While some communities have seen catastrophic impacts, the fires have had a direct impact on a larger group in a very personal, physical way.

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<sup>1</sup> ABS (2019) 3101.0 - Australian Demographic Statistics, Jun 2019

<https://www.abs.gov.au/ausstats/abs@.nsf/0/D56C4A3E41586764CA2581A70015893E?Opendocument>

## Missed work

The disaster has had and will have a deep impact across the economy, from health to lost tourism bookings to resources diverted into recovery. Some economists have estimated total impacts in the order of \$100 billion or more. One narrow but immediate component of these impacts is the economic shock from large numbers of people being unable to go to work.

The survey asked about respondents missing work. The fires disrupted economic activity both in areas under threat but also the towns and major cities choked with smoke. Businesses were forced to close and people were unable to work. Smoke impacts in Melbourne escalated further after the survey was conducted.

The data collected in the survey can be used to estimate lost economic production. Calculations and assumptions are set out in Table 1 and below.

**Table 1: Estimating lost production from fires and smoke**

	Full time workers	Part time worker	Total	Reference
Missed work	17%	8%		Survey
Total workers	8,837,300	4,117,200		ABS <sup>2</sup>
Total work days missed (assuming 1 each)	1,502,341	329,376	<b>1,831,717</b>	Calculated
GDP, \$m, Sept 2019 quarter			\$503bn	ABS <sup>3</sup>
Hours worked, Sept Q, million	4,403m	903m	5,333m	ABS <sup>4</sup>
Gross value added / hour			\$94	Calculated
Lost production, \$m	\$1,063m	\$233m	<b>\$1,296m</b>	Calculated <sup>5</sup>

The calculations first multiply the number of full and part time workers, according to ABS data, by the share of full and part time workers in the survey who said they missed work. It is assumed each worker missed one day.

**We estimate 1.83 million people missed work, including 1.5 million full time workers.**

<sup>2</sup> ABS (2019) 6202.0 - Labour Force, Australia, Nov 2019, Table 1, <https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0>

<sup>3</sup> ABS (2019) 5206.0 - Australian National Accounts: National Income, Expenditure and Product, Sep 2019, Table 3, seasonally adjusted, <https://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/5206.0>

<sup>4</sup> ABS (2019) 6202.0 - Labour Force, Australia, Nov 2019, Table 19, <https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6202.0Nov%202019?OpenDocument>

<sup>5</sup> Assuming 7.5 hour days, one day each.

Workers who missed work were either not paid or were paid but did not produce goods or services at work.

Lost production is estimated by first calculating gross value added per hour worked in the September 2019 (\$94 per hour) and apportioning this at one day (7.5 hours) per person who missed work.

**Lost production is estimated at \$1.3 billion.**

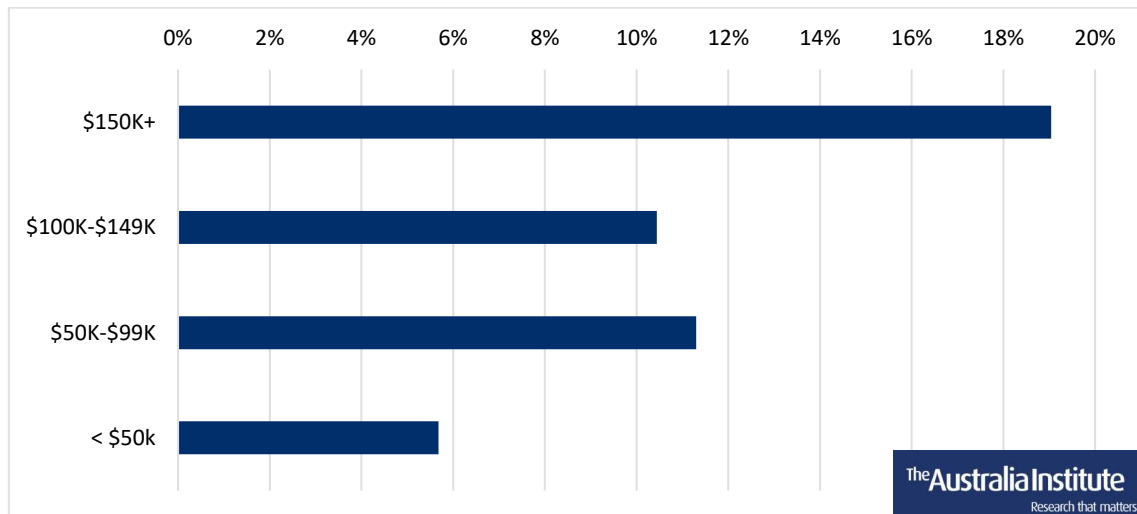
The calculations above are conservative in a number of ways.

The assumption of one day lost is likely low. In many areas, including in large cities, workplaces closed for many days and in some cases for a week or more.

If we assume an average of two days of lost production on average, the estimate of lost production doubles to \$2.6 billion.

The use of average incomes is conservative. The survey data show people living in higher income households were most likely to miss work as a result of the fires or smoke. It may be that higher income workers tend to have more influence over workplace safety or greater ability to not come in.

**Figure 5: Missed work by household income.**



The calculations are based on data obtained in the middle of the crisis and do not project forward to potential ongoing impacts. They are also narrow in scope. The shock hit both individual and business income. As the survey shows many people changed routines, could not travel and were unable to go to normal places of business or leisure. Some people who missed work would not have been paid, with further impacts.

While many of the areas directly impacted by bushfires (e.g. the NSW South Coast) are likely to have lower than average 'gross value added' as defined by economists, this is likely offset by the scale and localised nature of those impacts. Moreover, the results show that impacts were felt very widely, even in major metropolitan areas. In these areas, average gross value added is high.

Indeed, those in the five largest capital cities were equally as likely as those elsewhere to report that they missed work.

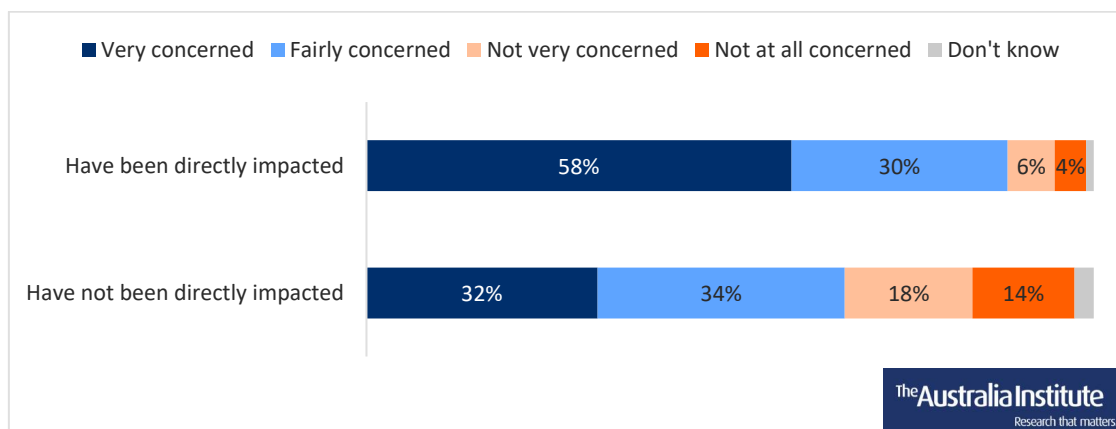


## Concern about climate change

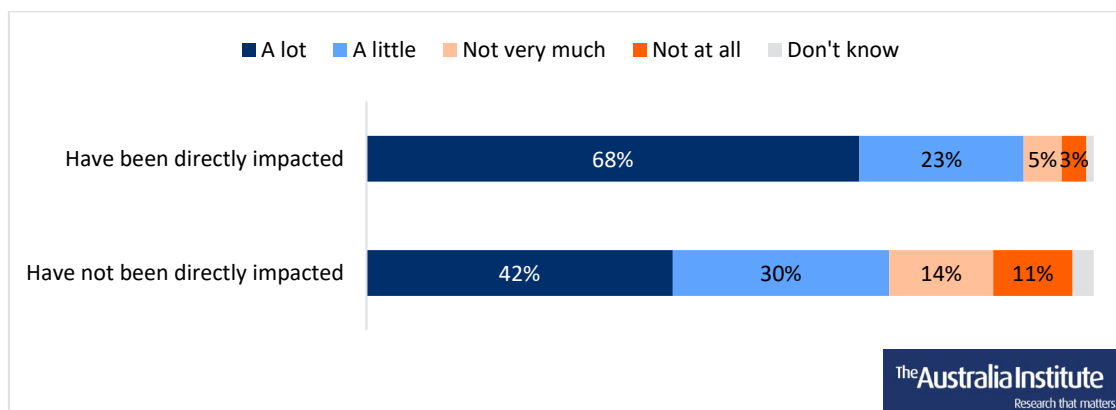
As found in previous research in Australia and elsewhere, the survey results suggest people who experience climate change impacts are more likely to be more concerned about climate change.

In this survey, people were also asked about their perceptions and concerns about climate change, the bushfires and climate policy. People who said they had been impacted in some way by the fires were much more likely to be very concerned about climate change (58%) than those not impacted (32%), and much more likely to say Australia is experiencing 'a lot' of climate change impacts (68% vs 42%).

**Figure 6: Those directly impacted by were more concerned about climate change**

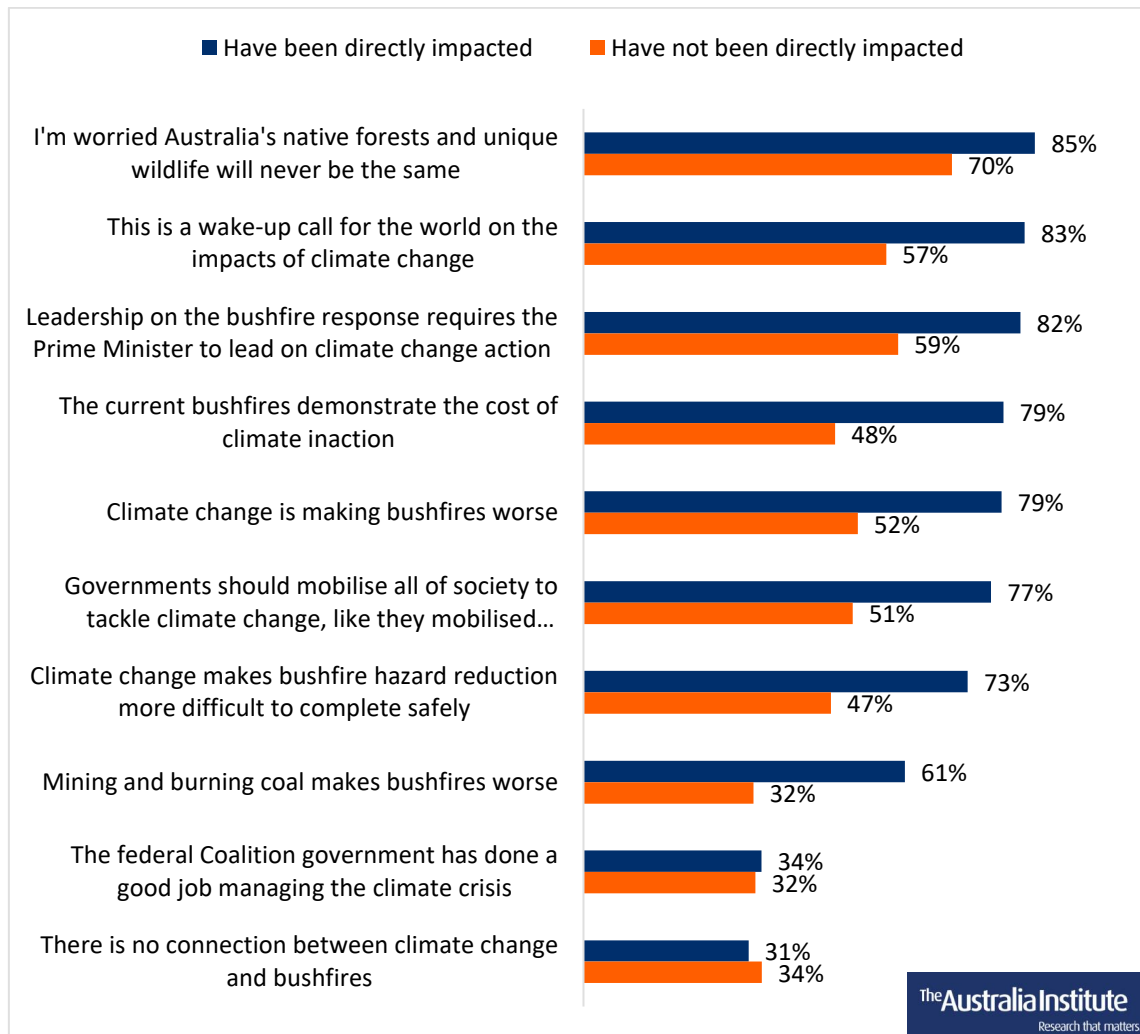


**Figure 7: Those directly impacted were more likely to think Australia seeing 'a lot' of climate change impacts.**



People who said they were directly impacted by the fires were much more likely to agree with statements expressing concern about impacts or the need for climate change leadership.

**Figure 8: Attitudes towards bushfires and climate change, by whether impacted**



Direct experiences of bushfire and smoke appear to have increased concern about climate change and support for climate action.

The converse is also possible to some extent. It may be that people more likely to have climate concerns are more likely to report bushfire impacts, if they are impacted. But it does not seem plausible that this is the main factor.

It is clear that for significant numbers of Australians there is a link between direct experiences of climate impacts and their concerns and desires for climate action. This is consistent with other research finding the same result. Escalating climate impacts mean there will be consequences for debates and expectations around climate policy.

Interestingly, those who support the government's response to the climate crisis or reject any link between the fires and climate change (bottom of the graph above) appear to have been unmoved in their support by whether or not they experienced direct impacts.

## Method

The Australia Institute commissioned YouGov to conduct a national opinion poll. YouGov surveyed 1033 people online between 8 and 12 January 2020. Results were weighted to reflect national demographics.

Results are shown only for larger states.

## Detailed results

*In which of the following ways have you been affected by the bushfires or smoke haze over the past three months?*

*(options randomised, multichoice, "None" was exclusive)*

	Total	Male	Female
I changed my usual routine in some way (e.g. avoided jogging outside, didn't take the kids to the park etc)	33%	30%	36%
I suffered illness or health effects because of the smoke haze (e.g. breathing/respiratory problems)	26%	22%	30%
I had to change or cancel my holiday or travel plans.	15%	16%	14%
A usual place of business or leisure was closed due to smoke haze or bushfires	12%	13%	10%
I missed work because of smoke haze or bushfires (e.g. cancelled shifts, business closed etc)	9%	11%	7%
My home or property was unsuitable to live in	8%	10%	6%
Other	3%	2%	3%
None of the above	43%	45%	41%

	NSW	VIC	QLD	SA	WA
I changed my usual routine in some way (e.g. avoided jogging outside, didn't take the kids to the park etc)	50%	36%	19%	24%	8%
I suffered illness or health effects because of the smoke haze (e.g. breathing/respiratory problems)	35%	29%	15%	31%	8%
I had to change or cancel my holiday or travel plans.	21%	14%	8%	12%	11%
A usual place of business or leisure was closed due to smoke haze or bushfires	16%	8%	8%	7%	8%
I missed work because of smoke haze or bushfires (e.g. cancelled shifts, business closed etc)	12%	8%	5%	13%	5%
My home or property was unsuitable to live in	9%	6%	7%	10%	7%
Other	2%	2%	4%	2%	5%
None of the above	26%	39%	60%	42%	70%

	18-24	25-34	35-49	50-64	65+
I changed my usual routine in some way (e.g. avoided jogging outside, didn't take the kids to the park etc)	34%	49%	40%	23%	20%
I suffered illness or health effects because of the smoke haze (e.g. breathing/respiratory problems)	27%	32%	28%	20%	25%
I had to change or cancel my holiday or travel plans.	19%	23%	20%	7%	8%
A usual place of business or leisure was closed due to smoke haze or bushfires	16%	15%	21%	3%	3%
I missed work because of smoke haze or bushfires (e.g. cancelled shifts, business closed etc)	11%	15%	16%	3%	1%
My home or property was unsuitable to live in	3%	12%	15%	3%	2%
Other	4%	1%	2%	3%	3%
None of the above	39%	21%	32%	58%	61%

	Capital cities (biggest 5)	Other
I changed my usual routine in some way (e.g. avoided jogging outside, didn't take the kids to the park etc)	36%	29%
I suffered illness or health effects because of the smoke haze (e.g. breathing/respiratory problems)	25%	28%
I had to change or cancel my holiday or travel plans.	15%	15%
A usual place of business or leisure was closed due to smoke haze or bushfires	11%	12%
I missed work because of smoke haze or bushfires (e.g. cancelled shifts, business closed etc)	9%	9%
My home or property was unsuitable to live in	9%	5%
Other	2%	3%
None of the above	39%	50%

**To what extent do you agree or disagree with the following?**

**(Total agree, by any impacts vs no impacts. Statements presented in randomised order)**

	Have been directly impacted	Have not been directly impacted
I'm worried Australia's native forests and unique wildlife will never be the same	85%	70%
This is a wake-up call for the world on the impacts of climate change	83%	57%
Leadership on the bushfire response requires the Prime Minister to lead on climate change action	82%	59%
The current bushfires demonstrate the cost of climate inaction	79%	48%
Climate change is making bushfires worse	79%	52%
Governments should mobilise all of society to tackle climate change, like they mobilised everyone during the world wars'	77%	51%
Climate change makes bushfire hazard reduction more difficult to complete safely	73%	47%
Mining and burning coal makes bushfires worse	61%	32%
The federal Coalition government has done a good job managing the climate crisis	34%	32%
There is no connection between climate change and bushfires	31%	34%