Victorian Alpine Resorts Economic Contribution Study

2016 Winter Season

21 April 2017

Building a better working world

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Executive summary

The alpine resorts

The alpine resorts of Victoria generate economic activity for the State as they attract a numbers of Victorian, interstate and international visitors. The presence of alpine resorts in Victoria means that many snow sports enthusiasts, who would otherwise have travelled overseas to the snow (if the Australian resorts had not been developed) have an Australian snow sports option.

This results in interstate and international visitors along with local snow sports enthusiasts' spending money on snow sports activity in the Australian economy rather than spending this money overseas.

The value of the resorts to both state and regional economies identified in this report demonstrates the importance of the alpine resorts to local economies and the state of Victoria.

This analysis demonstrates that the alpine resorts help boost economic activity in regions and a growth in unemployment would become more of an issue if the alpine industry and resorts were to decline in quality and appeal. The alpine resorts are of importance in terms of their economic contribution to the regions closest to where the resorts are located.

Visitors to the alpine resorts during the winter season

It is estimated by the Alpine Resorts Co-ordinating Council that there were a total of 762,981 visitors to the Victoria alpine resorts across the winter months, which produced almost 1.4 million visitor days.

In the Victorian alpine resorts, visitors from outside the state made up 16 per cent of total visitors and 197,000 visitor days; and an average 4 per cent of visitors at Victoria's alpine resorts were from overseas, representing around 56,500 visitor days. Although the proportion of international tourism remains low, the Australian alpine resort industry is important in retaining snow sports and recreational tourism and expenditures that would have most likely gone overseas if the alpine resorts in Australia had not been developed to capture snow sports activity and expenditures in the local economy.

The economic contribution of the alpine resorts

Gross direct visitor expenditure generated by the Victorian alpine resorts was $709 million. In 2011, total gross direct visitor expenditure in the Victorian alpine resorts was $636 million (in 2011/12 prices) or $692 million (in 2016/17 prices). This expenditure covers all visitor transactions, including food, beverages, lift passes, entry fees and local travel. The flow-on consequences of the net additional expenditures were analysed using an input/output based model. The results of this analysis for Victoria in 2016 shows an economic contribution (gross state product) of $790 million, compared to what would have been the case in the absence of the economic contribution of the alpine resorts in the winter season.

Importantly, job opportunities generated was approximately 7,900 in Victoria during the winter season.

Table 1: Economic contribution of the alpine resorts to Victoria (all figures presented in $2016/17)

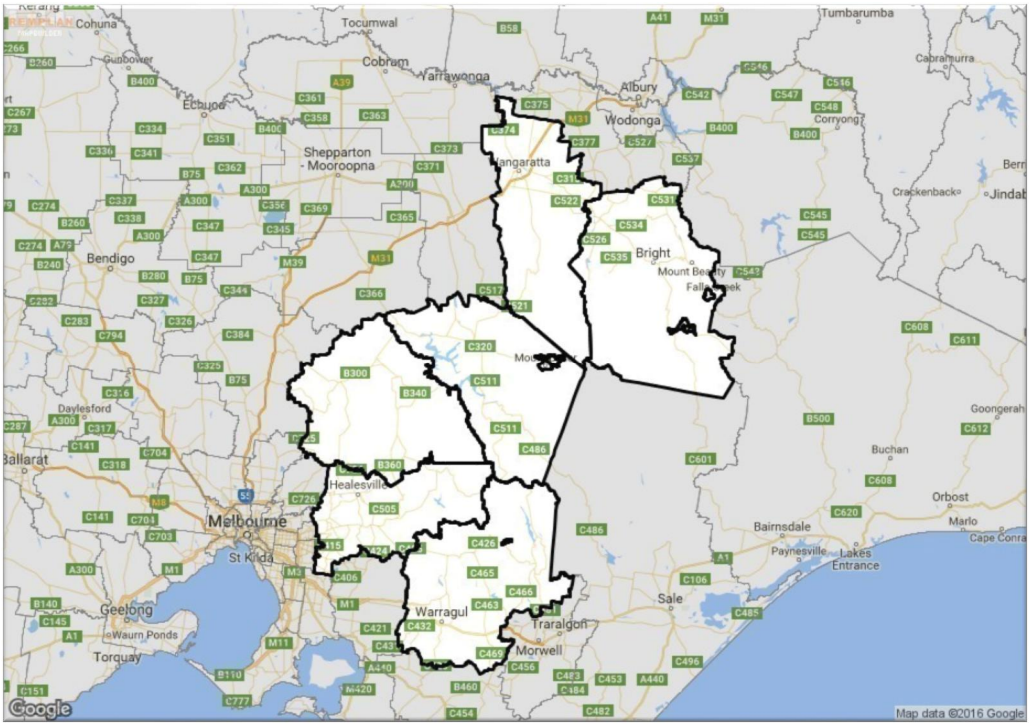
Victorian economic contribution	2011	2016
Direct gross expenditure ($m)	$692	$709
Employment (Jobs)	9,754	7,892
GSP (Value-added) ($m)	$620	$790

Source: EY analysis

The Victorian alpine resorts

Victoria is home to six officially designated alpine resorts which lie in the east and northeast of Victoria between 120km and 380km from Melbourne. The alpine resorts are a tourist destination for Victoria as they attract a number of local, interstate and international visitors, bringing economic benefit to the regions located in close proximity to the resorts.

The Victorian alpine region's major snow and ski resorts are Mount Buller/Stirling, Falls Creek, Mount Baw Baw, Mount Hotham and Lake Mountain. Stretching from the east to the north-east of the state, the alpine region is comprised of the Local Government Areas (LGAs) of Alpine Shire, Shire of Murrindindi, Shire of Mansfield and Baw Baw Shire.



While the majority of tourism in this region is driven by snow and ski resorts, outside of the snow season, the mountains provide a good location for bushwalking, horse-riding, cycling, scenic driving and fishing.

Visitation statistics

According to visitation data provided by the ARCC, Mt Buller/Stirling had the most visitors in the 2016 winter season, with 323,932 people visiting the resort. This accounted for around 42% of the total visitation to all Victorian alpine resorts during the season.

Mt Buller/Stirling also accounted for the most number of visitor days, followed by Falls Creek and Mt Hotham. In terms of visitors' length of stay, Mt Hotham and Falls Creek visitors averaged 2.7 and 2.6 days respectively which was the highest among the resorts.

As there are no overnight facilities at Lake Mountain, all visitors to the resort were day-trip visitors.

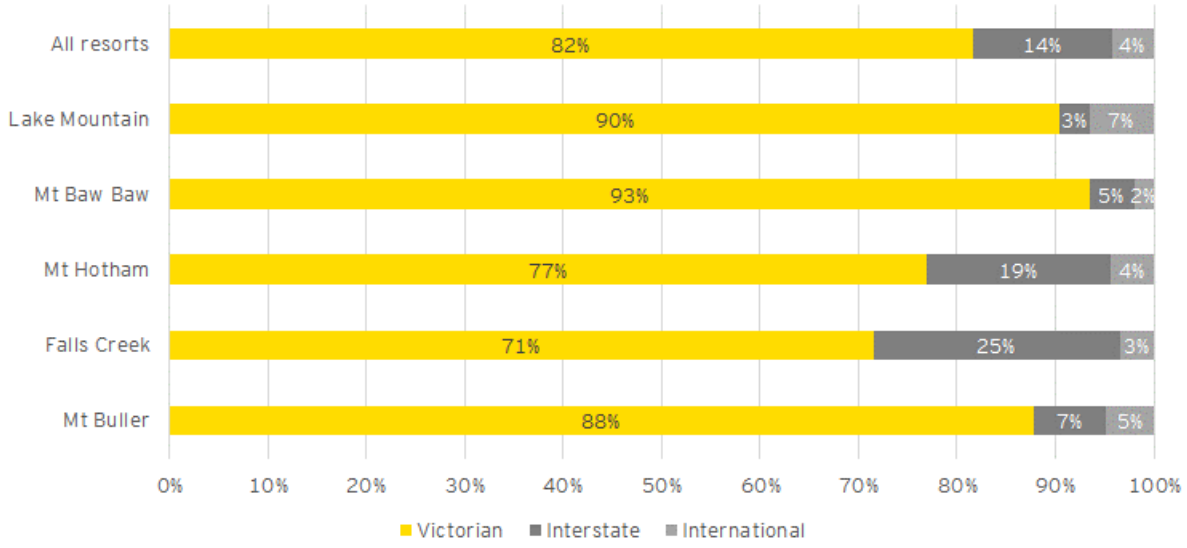
Table 2 2016 winter visitation statistics by resort

Resort	Total visitors	Number of visitor days	Average length of stay
Falls Creek	168,973	446,037	2.6
Lake Mountain	99,793	99,793	1.0
Mt Baw Baw	49,775	61,335	1.2
Mt Buller/Stirling	323,932	457,445	1.4
Mt Hotham	120,508	328,602	2.7
All resorts	**762,981**	**1,393,212**	**1.8**

Source: ARCC

Outlined in the following figure is a breakdown of the patrons by origin. The survey results reveal that across all of Victoria's alpine resorts, 82% of the visitors are from Victoria, while 14% are interstate visitors and the remaining 4% are from overseas.

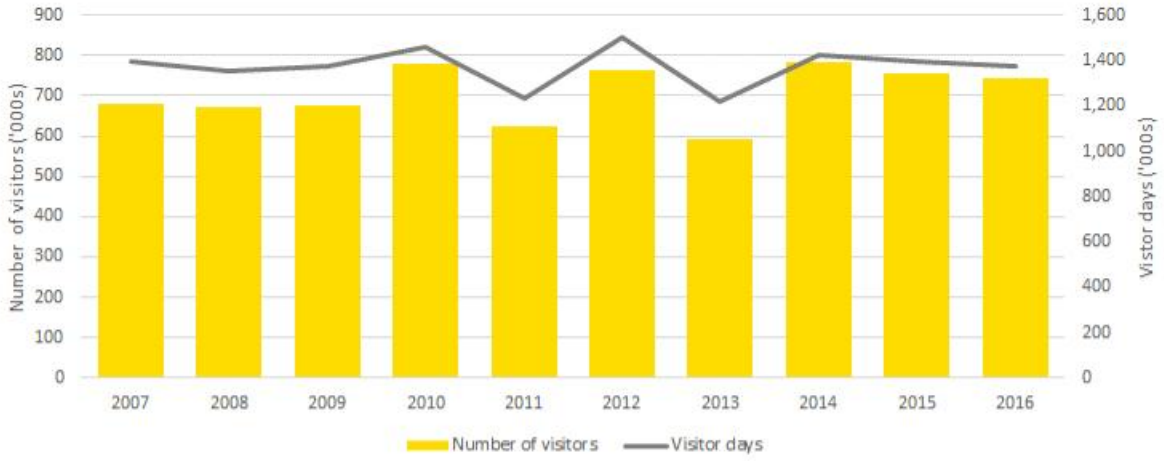
Figure 1 Visitor origin distribution by resort



Source: EY Sweeney survey results

Total visitation to Victoria's alpine resorts in the winter season has increased steadily over the past decade. Since the last economic contribution study was prepared in 2011, the total number of visitors across Victoria's alpine resorts has increased by 19%, while the number of visitor days has increased by 11% over that time. This increase can be somewhat explained by the low number of visitors and visitor days in 2011 (as seen in the figure below).

Figure 2 Visitation statistics over time (All resorts)

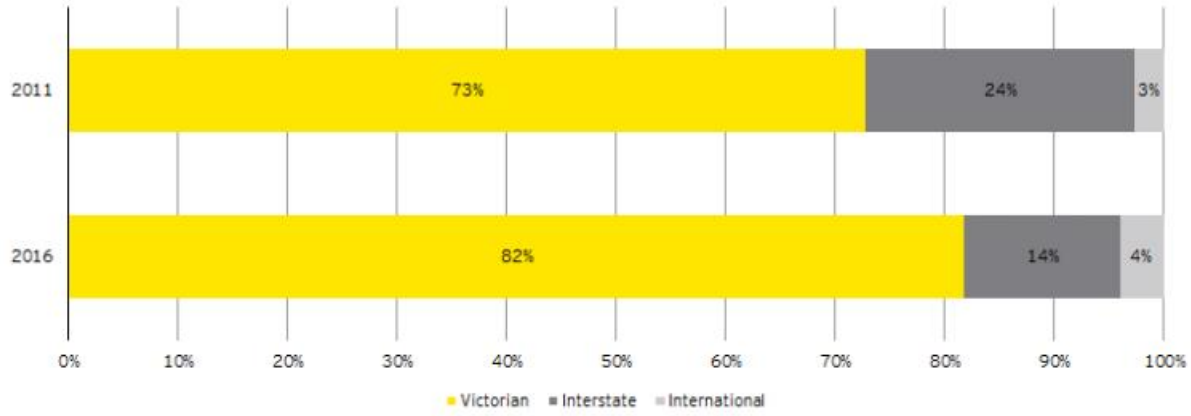


Source: EY Sweeney survey results

Since 1980, visitor trips to an alpine resort have grown at 0.2% per annum with visitor days growing at 0.7%. While this indicates that more people are visiting an alpine resort and are staying longer, the increase has not kept pace with Victorian population growth. Since 1980, population is tracking at an increase of 1.1% per annum. This has increased to 1.3% over the past two years.

In terms of visitor origin, in 2016 there were a higher proportion of Victorian visitors to the Victorian alpine resorts compared to 2011 (up from 73% to 82%), as well as a higher share of international visitors (up from 3% to 4%). However, the share of interstate visitors declined from 24% to 14%.

Figure 3 Comparison of visitor origin (2011 vs 2016)



Source: EY Sweeney survey results

Compared with 2011, the number of visitor days from Victorian visitors has increased by 28%, while international visitor days has increased by 45%. However, these gains have been partially offset by a decline in interstate visitor days which has declined by 39% between 2011 and 2016.

Table 3 Comparison of visitor days by origin

	2011	2016	% change
Local	890,217	1,139,540	28%
Interstate	324,664	197,190	-39%
International	38,970	56,482	45%
All visitors	**1,253,851**	**1,393,212**	**11%**

Source: ARCC

Economic Contribution to Victoria

The Victorian alpine resorts have a broader impact across the state with the analysis showing that it contributes $790 million to the Gross State Product (GSP) of Victoria, and almost 7,900 jobs across the state. Of the 7,900 jobs, approximately 4,650 were directly employed in industry supporting winter activities in the alpine region. This estimate includes full time, part time and casual work in industries such as tourism support and tours, accommodation, food and beverage and retail. The indirect jobs supported by the alpine resorts are spread across the retail, accommodation, transport and manufacturing sectors.

Table 4 Economic contribution to Victoria (all figures presented in $2016/17)

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$709	$1,005	$1,714
Employment (Jobs)	4,652	3,240	7,892
GSP (Value-added) ($m)	$316	$474	$790

Source: EY analysis

The table below shows that in comparison with the previous study undertaken in 2011, both output and value-added have increased, while total employment has declined due to lower employment multipliers which is most likely linked to improved business efficiencies and the uptake of technology in tourism industries. While some of this change can be attributed to differences in the methodology used in the previous study (described in more detail in section 4.3), the increase in output and value-added can has also been driven by increases in total visitation and average daily expenditure.

Table 5 Economic contribution to Victoria comparison (2011 vs 2016) (all figures presented in $2016/17)

Total impact	2011	2016	% change
Direct gross expenditure ($m)	$692	$709	2%
Employment (Jobs)	9,754	7,892	-19%
GSP (Value-added) ($m)	$620	$790	27%

Source: EY analysis

Since 2011, the average daily expenditure of Victorian visitors across all resorts has increased by 28%, interstate visitors by 34% and overseas visitors by 44%.

Table 6 Comparison of average daily expenditure by visitor origin (All resorts) (all figures presented in $2016/17)

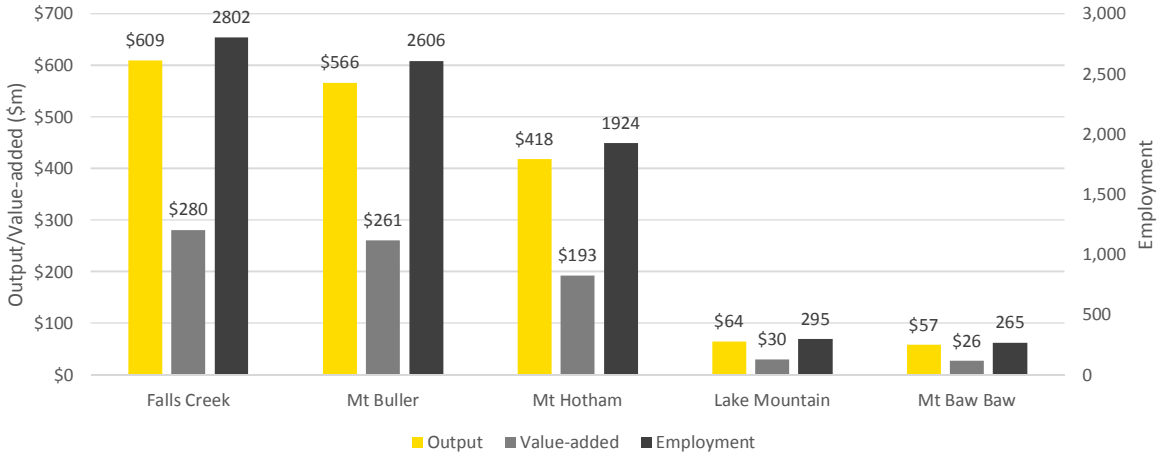
Visitor origin	2011	2016	% change
Local	$371	$476	28%
Interstate	$388	$521	34%
Overseas	$385	$553	44%

Source: EY analysis

Note: Expenditure comparison includes all transactions in resort including meals, shopping, hire, local travel, accommodation and 'other'. The 2011 study appears to include additional expenditure in the direct gross expenditure calculation.

In terms of each resort's economic contribution to Victoria, Falls Creek was the most significant contributor accounting for $280 million in value added and 2,802 jobs. 1,651 of these jobs were created on the mountain supporting tourism, accommodation, food and beverage and retail industries. A further 1,151 indirect jobs were created from the flow on expenditures related to wider activities in Falls Creek. While Mt Buller/Stirling had significantly more visitors than Falls Creek (323,932 visitors compared to 168,973 visitors), those who visited Falls Creek often stayed longer with the average length of stay for Falls Creek visitors being 2.6 days compared to 1.4 days for Mt Buller/Stirling visitors. This increased length of stay resulted in greater direct spend and economic contribution to Victoria.

Figure 4 Total economic contribution (direct and indirect) to Victoria by resort



Source: EY analysis

Economic contribution to the Greater Alpine Region[1]

The Victorian alpine resorts contribute over $543 million in value added to the Gross Regional Product (GRP) of the Greater Alpine Region and over 6,000 jobs through both direct and indirect impacts.

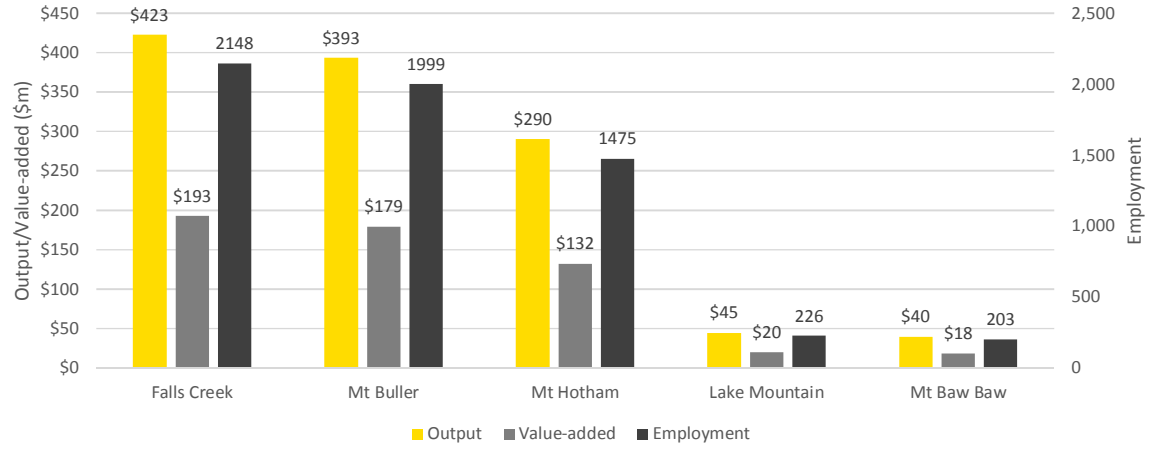
Table 7 Economic contribution to Greater Alpine Region (all figures presented in $2016/17)

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$709	$482	$1,191
Employment (Jobs)	4,278	1,774	6,052
GRP (Value-added) ($m)	$311	$232	$543

Source: EY analysis

In terms of the economic contribution of each resort to the Greater Alpine Region, Falls Creek was the largest contributor accounting for over $193 million in value added, and 2,148 jobs to the region. Again the average length of stay of visitors to Falls Creek increased direct spend and economic contribution.

Figure 5 Total economic contribution (direct and indirect) to the Greater Alpine Region by resort (all figures presented in $2016/17)



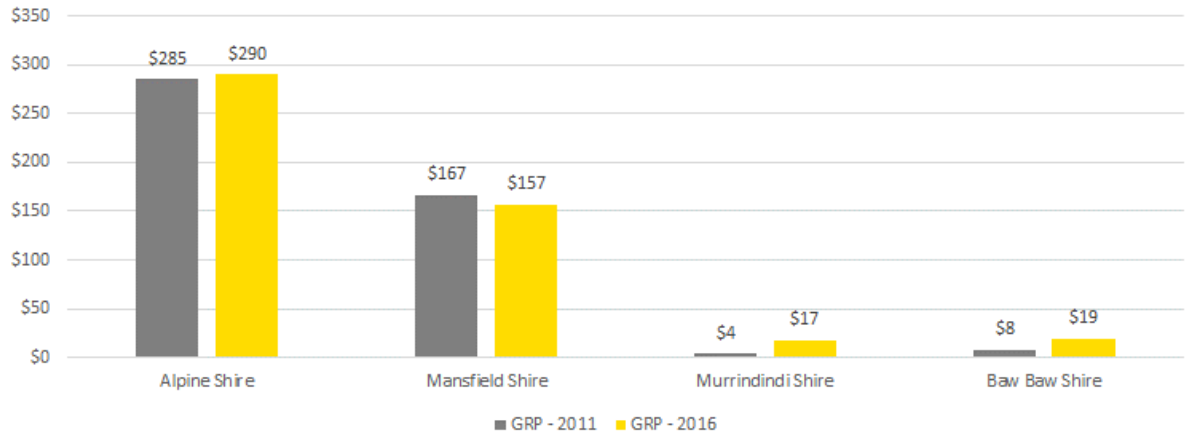
Source: EY analysis

[1] The Greater Alpine Region includes the Shire of Alpine, Shire of Baw Baw, Shire of Mansfield and Shire of Murrundindi Local Government Areas (LGAs)

Economic contribution to Local Government Areas (LGAs)

In terms the Victorian alpine resorts' economic contribution to the various LGAs, Falls Creek and Mt Hotham resorts contributed around $290 million to the Gross Regional Product (GRP) of the Alpine Shire (up from $285 million in 2011 when converted to $2016/17). Mt Buller/Stirling's contribution to the GRP of the Mansfield Shire representing a decrease from 167 million when converted to $2016/17).

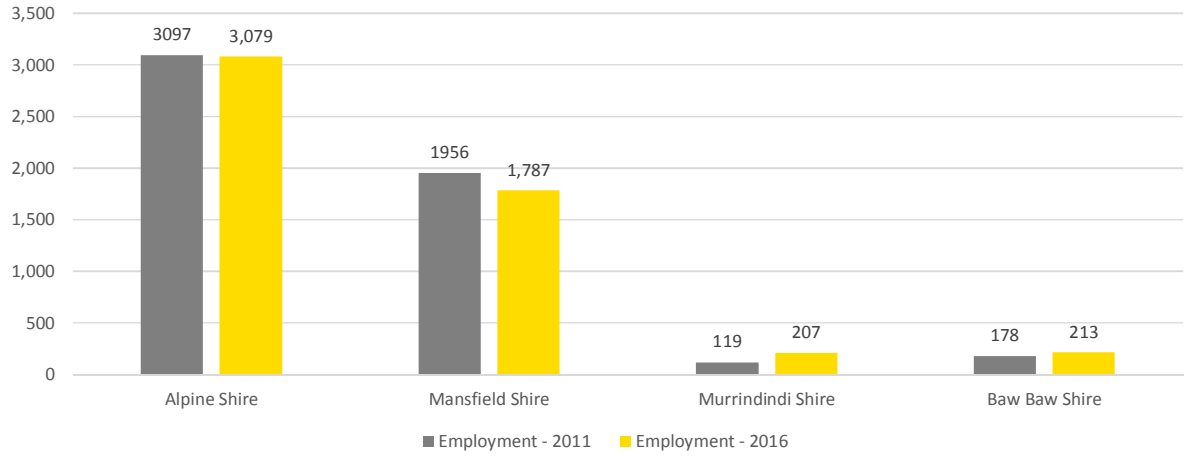
Table 8 Value added by Local Government Area (LGA) (all figures presented in $2016/17)



Source: EY analysis

While employment has declined in 2016 compared to the 2011 study, it is important to note that the 2011 figures have been converted to annual equivalent terms with recognition in the 2011 report that employment may have been overstated. Additionally, due to technology advancement and business efficiencies in the tourism industry, employment multipliers have decreased in recent years (i.e. there is now less job creation from increased direct expenditure).

Table 9 Employment by Local Government Area (LGA)



Source: EY analysis

Broader social and cultural benefits

Economic contribution studies do not fully capture the value that Victoria receives from the alpine resorts' operations. The broader social and cultural value generated by the alpine resorts for the Victorian community that have not been captured in the economic contribution analysis includes:

- **Use value** – In addition to the value represented by the price paid for a trip to an alpine resort, obtained from the direct cost of the trip (i.e. value associated with recreation, health, education, the environment, tourism, productivity improvements and community pride)

- **Non-use values** – Value that the Victorian community assign to the alpine resorts, even if they do not use the resort's facilities (i.e. existence value).

The table below describes the broader social and cultural benefits attributable to Victoria's alpine resorts, and provides an indication of the potential economic value these benefits have for Victoria.

Table 10 Broader social and cultural benefits summary

Benefit item	Description	Estimated value
Time and travel costs	Refers to the additional value visitors are willing to pay in order to visit the alpine resorts. This has been estimated using travel costs as a proxy for a visitor's willingness to pay (i.e. consumer surplus).	≈$109 million
Health benefits	The recreation and amenity services that Victoria's alpine resorts provide can contribute to the prevention of some physical and mental health costs or the improvement of health outcomes that can be influenced by lifestyle.	≈$61 million
Environmental benefits	The forests, woodlands and wetlands of Victoria's alpine resorts helps to improve water quality by naturally purifying and filtering water and reducing the release of soil sediment, pollutants and organic matter that would otherwise reach our waterways. This has been estimated using the methodology set out in the Parks Victoria 'Valuing Victoria's Parks' report.	≈$2.4 million
Existence value	The value local residents place on maintaining the alpine Resorts' operations in Victoria, even if they do not attend any of the locations.	≈$2.7 million

Observations and opportunities

The study shows that the alpine regions contributes to the Victorian economy through visitation and tourism expenditure. Since 2011, direct visitor expenditure in the alpine region has increased from $692 million to $709 million, increasing contribution to GSP from $620 million to $790 million (when all figures are converted to $2016/17). This is a result of the increase in visitor days in the region and daily expenditure.

While the alpine resorts contribute to the economic and social fabric of Victoria, opportunities exist to expand the current offering and increase the contribution of the region. Key stakeholders have identified a range of opportunities that will assist the alpine region increase their economic and social contributions including:

- The need to continually raise awareness of the unique, value for money experience in the alpine region

- Leverage strong relationships and collaboration with organisations such as Visit Victoria to assist in the promotion of the alpine regions as a destination of choice (including surrounding towns such as Bright and Mansfield)

- Develop innovative products to improve market share (within Vic, across NSW and internationally)

- Target new markets with growing visitation from countries such as China and India

- Continue to expand the green season offering (services and infrastructure) and begin commercialising activities.

The stakeholder engagement process found that the implementation of identified opportunities and change was challenging due to limited opportunities for cohesion or a holistic strategy on marketing and commercialisation of the alpine resorts (sector wide) spanning both the white and green seasons.

Stakeholders noted that it is common for businesses to deliver their service with little consultation or cooperation with other groups resulting in duplication of services and inefficient business processes.

Examples of this duplication and inefficiency are most visibly present in respect of entry prices, parking, vehicle transfers for patrons from arrival points to their accommodation, retail, ski hire and lift ticketing and food and beverage offerings on the mountain. Stakeholders believed that a blueprint / roadmap for the coordination of commercial relationships across various resorts be undertaken could help improve services provision for customers.

1. Introduction

1.1 Background

Regular economic impact and contribution studies on behalf of the Alpine Resorts Co-ordinating Council (ARCC) have been undertaken for almost 30 years with the most recent study being completed in 2011. This economic contribution study aims to highlights the importance of the Victorian alpine resorts ("the resorts") to the Baw Baw Shire, Alpine Shire, Mansfield Shire, Murrindindi Shire and the state of Victoria, by estimating its economic contribution to each of these regions across the winter and summer months, as well as the broader social and recreational value of the Resorts. This includes value associated with recreation, education, the environment, and community cohesion generated by the Resorts. Calculating the impact of resorts outside of Victoria was not part of the project scope.

The resorts are a tourist destination in Victoria, providing a range of skiing and snow play facilities along with a growing number of summer activities. The Victorian alpine region consists of a number of key resort locations, with the five key areas considered for the purpose of this report being:

- Falls Creek
- Lake Mountain
- Mt Baw Baw
- Mt Buller/Stirling
- Mt Hotham.

1.2 Purpose of this report

The purpose of the study is to obtain reliable knowledge about the economic significance of the alpine resorts, specifically to:

- Quantify the economic activity that is generated by the Victorian alpine resorts in the winter season (Part 1 – this report) and in the in the summer months (Part 2 - to be released separately)
- Quantify the regional benefits generated by Victorian alpine resorts, in the Local Government Area (LGAs) in Victoria where the resorts are situated
- Identify the broader social and recreational benefits of the Victorian alpine resorts.

The scope of work included:

- Defining key economic metrics to be measured
- Developing survey questionnaires to capture all relevant information required for economic modelling
- Undertaking primary research to collect information from visitors, employees and businesses
- Estimating the economic contribution of alpine resorts to LGAs, the Greater Alpine Region and Victoria
- Summarising stakeholder views on the current strengths and weaknesses of the alpine resorts and has explored the future opportunities and threats.

Information presented in this report is limited to that collected through surveying of visitors, employees and businesses and information provided by ARCC.

This report proceeds as follows:

- Chapter 2 – The alpine region
- Chapter 3 – Visitors, employees and businesses
- Chapter 4 – Economic contribution and employment
- Chapter 5 – Broad social and recreational benefits
- Chapter 6 – Engagement with stakeholders.

1.3 ARCC Overview

Alpine Resorts Co-ordinating Council (ARCC) is a statutory body established under the Victorian Alpine Resorts (Management) Act 1997. While the ARCC does not undertake day-to-day operational functions for the alpine resorts, it is responsible for addressing key issues relating to the alpine resorts including strategic positioning and advocacy, co-operation and research on behalf of the Minister for Energy, Environment and Climate Change.

The ARCC has four main undertakings:

- Strategic Positioning of the Victoria alpine resorts
- Co-ordination and Co-operation across stakeholders in the Victorian alpine resorts
- Knowledge and Understanding of the Victorian alpine resorts
- Governance of the ARCC.

One of the ARCC's primary functions is to keep abreast of, and undertake, research to grow the understanding of the alpine industry in order to provide an evidence base for decisions around policy, promotion and investment, and operations.

As part of the ARCC's objective to improve its knowledge and understanding of the Victorian alpine resorts, the ARCC produces a number of publicly available publications which focus on sector wide data collection and collation, research, assessment and understanding. These publications include:

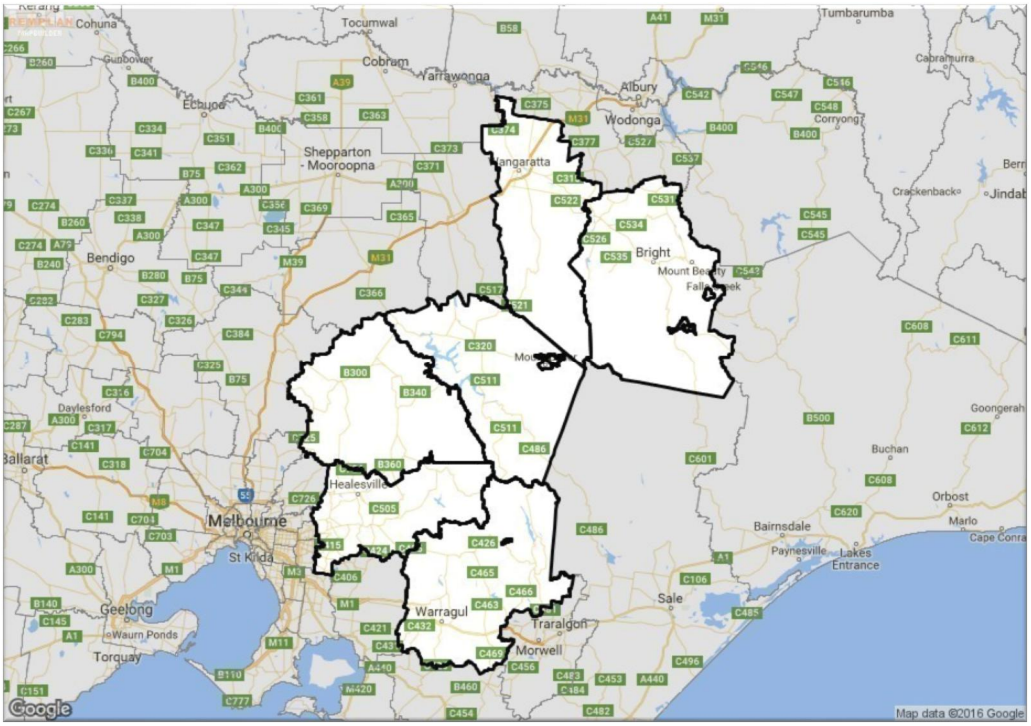
- **Economic contribution study:** The study demonstrates the economic benefit created by the Victorian alpine resorts. It was last prepared in 2011 for the Summer and Winter seasons
- **Summer Visitation Survey:** An annual report conducted to understand the number of visitors and their reason for visiting during the summer season
- **Visitor Satisfaction Survey:** A survey conducted largely online during the winter season to measure visitor satisfaction of resort users
- **Winter Visitor Counting Survey:** Visitor numbers are collected and collated on a weekly basis during the winter season. As well as releasing weekly statistics, adjusted end of year statistics are produced, which take into account the results of the season permit holder survey
- **Snow Data Reporting Project:** ARCC collects and collates the daily snow reports produced by the Victorian Snow Reporting Service
- **Winter End of Season Report:** The report consolidates a wealth of detailed information from the Visitor Satisfaction Survey, Winter Visitor Counting Survey and Snow Data Reporting Project into a readily accessible single document that assists those involved in the planning, use and development of the alpine resorts
- **Victorian Snow Segmentation Study:** The study provides insights into the attitudes, perceptions and behaviour of key market segments.

Source: ARCC

2. The alpine region

2.1 Location

Victoria is home to six officially designated alpine resorts which lie in the east and northeast of Victoria between 120 and 380 km from Melbourne. The alpine resorts are a tourist destination in Victoria as they attract a number of local, interstate and international visitors, bringing economic benefit to the regions located near the resorts.



The Victorian alpine region's major snow and ski resorts are Mount Buller/Stirling, Falls Creek, Mount Baw Baw, Mount Hotham and Lake Mountain. Stretching from the east to the north-east of the state, the alpine region is comprised of the Local Government Areas (LGAs) of Alpine Shire, Shire of Murrindindi, Shire of Mansfield and Baw Baw Shire. While the majority of tourism in this region is driven by snow and ski resorts, outside of the snow season, the mountains provide a good location for bushwalking, horseriding, cycling, scenic driving and fishing.

2.2 Overview of resorts

Falls Creek

The Falls Creek resort is approximately four and a half hours drive from Melbourne and has a village atmosphere. Its development was historically linked to the Kiewa Valley hydroelectricity scheme which was constructed after the Second World War. The existence of Rocky Valley dam close to the village enhances its year round tourism potential.

Falls Creek provides access to the Bogong High Plains. In addition to alpine snow sports, the resort offers cross-country skiing and hosts the Kangaroo Hoppet, which is part of a international series of cross-country events.

Table 11 Snapshot of Falls Creek

	Value
Highest Altitude (elevation metres)	1,849
Highest lifted altitude (elevation metres)	1,780
Lowest lifted altitude (elevation metres)	1,500
Number of lifts	14
Skiable area (hectares)	450
Snow making area (hectares)	100
Cross-country trails (kilometres)	65
Number of beds at resort (approx.)	5,000
Snow sports terrain ► Advanced (%) ► Intermediate (%) ► Beginner (%)	 23% 60% 17%

Source: ARCC

Lake Mountain

Lake Mountain is a cross-country and snow play resort, located on a plateau approximately 120 kilometres to the north east of Melbourne. It has no overnight accommodation but is accessible on a day-trip basis from Melbourne with a driving time of approximately two hours. Visitor numbers have decreased over the last two decades with poor snow seasons impacting on visitor numbers. However, numbers have begun to increase again due to relatively good seasons and a growing interest from first time visitors to alpine resorts.

Lake Mountains' accessibility to Melbourne and inexpensive nature make it a resort for introducing newcomers to snow sports. The resort was extensively damaged during the 2009 bushfires. Nearby Marysville, which previously complemented the resort with approximately 3,000 beds and commercial services, needed to be re-built after being almost totally destroyed.

Table 12 Snapshot of Lake Mountain

	Value
Highest Altitude (elevation metres)	1,490
Base altitude (metres)	1,340
Skiable area (hectares)	590
Snow making area (hectares)	3
Groomed Ski trails (kilometres)	37
Number of beds at Marysville and Triangle area	400+
Snow sports terrain ► Advanced (%) ► Intermediate (%) ► Beginner (%)	 11% 64% 25%

Source: ARCC

Mt Baw Baw

Mt Baw Baw caters for a range of snow sport activities. It is about 170 kilometres from Melbourne with a driving time of approximately two hours. It has an important beginner area and caters for those interested in a low cost introduction to snow sports.

Table 13 Snapshot of Mt Baw Baw

	Value
Highest Altitude (elevation metres)	1,564
Highest lifted altitude (elevation metres)	1,560
Lowest lifted altitude (elevation metres)	1,450
Number of lifts	7
Skiable area (hectares)	37
Snow making area (hectares)	10

	Value
Cross-country trails (kilometres)	10
Number of beds at resort (approx.)	700
Snow sports terrain ► Advanced (%) ► Intermediate (%) ► Beginner (%)	 11% 64% 25%

Source: ARCC

Mt Buller/Mt Stirling

Mt Buller/Stirling Alpine Resort, in terms of visitor numbers, is the largest Victorian alpine resort. It is a well-developed resort with a diverse range of activities comparable to those found anywhere in the Australian Alps. It has developed a significant program of year round events to better utilise the resorts extensive facilities. Only 30 minutes away from Mt Buller, Mt Stirling offers accessible and affordable cross-country and outdoor activities all year round. For the purpose of this study, Mt Buller and Mt Stirling have been combined due to their close proximity to one another.

Table 14 Snapshot of Mt Buller

	Value
Highest Altitude (elevation metres)	1,805
Highest lifted altitude (elevation metres)	1,780
Lowest lifted altitude (elevation metres)	1,375
Number of lifts	22
Skiable area (hectares)	300+
Snow making area (hectares)	78+
Cross-country trails (kilometres)	9
Number of beds at resort (approx.)	7,300
Snow sports terrain ► Advanced (%) ► Intermediate (%) ► Beginner (%)	 35% 45% 20%

Source: ARCC

Mt Hotham

The Mt Hotham resort is built close to the top of the mountain. This gives the village a unique character in world terms, as almost all ski villages are nestled at the foot of a ski field. Mt Hotham can be accessed by plane, serviced by its own airport approximately 20 kilometres from the ski slopes. The resort works in close association with the freehold village of Dinner Plain, which is located 11 kilometres away.

Table 15 Snapshot of Mt Hotham

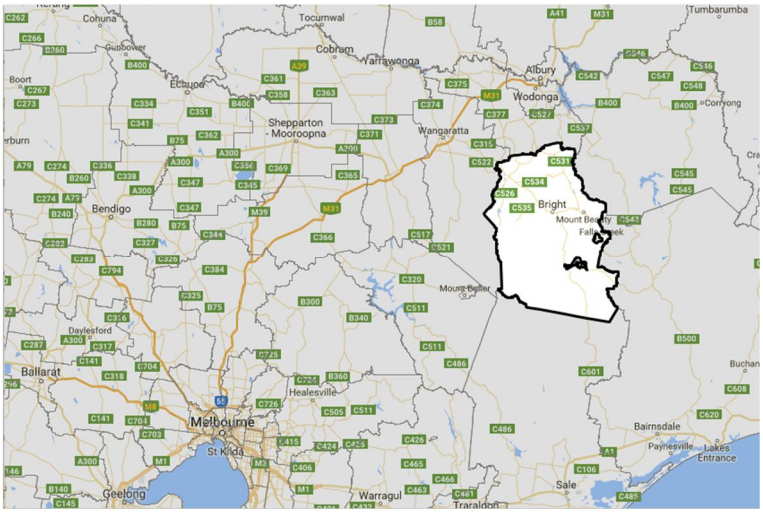
	Value
Highest Altitude (elevation metres)	1,861
Highest lifted altitude (elevation metres)	1,845
Lowest lifted altitude (elevation metres)	1,450
Number of lifts	13
Skiable area (hectares)	300
Snow making area (hectares)	40
Cross-country trails (kilometres)	30
Number of beds at resort (approx.)	7,000+
Snow sports terrain ► Advanced (%) ► Intermediate (%) ► Beginner (%)	 40% 40% 20%

Source: ARCC

2.3 Economy (LGAs)

The following information has been sourced from REMPLAN Economy. REMPLAN is an economic analysis software package designed for use by economic development practitioners. REMPLAN provides detailed economic data for single or combined local government areas and also incorporates a dynamic economic modelling capability to allow the analysis of 'what if' scenarios. REMPLAN has been used to undertake the economic analysis. Information presented in this chapter is a snap shot of local economies in the alpine region.

Alpine Shire

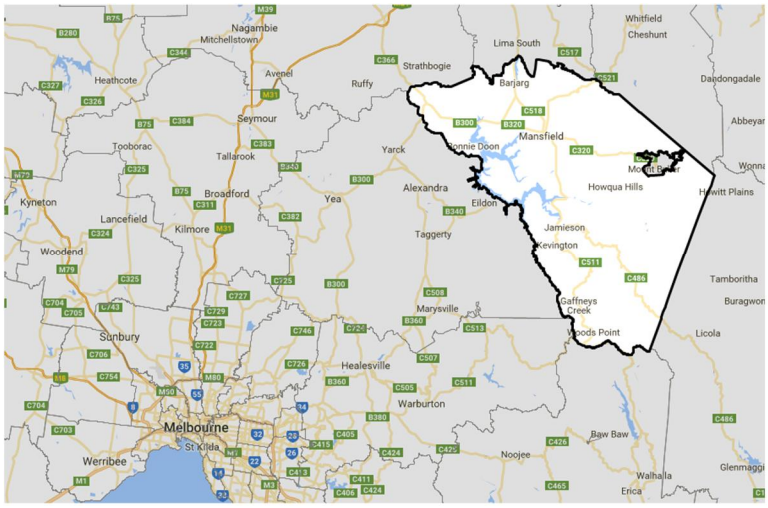


Descriptor	Value
Population (as of 2015)	12,211
Average age	48 years
Unemployment rate	4.7%
Gross Regional Product	$727m
Top 3 industries (employment)	▸ Accommodation & Food Services ▸ Retail Trade ▸ Health care

Source: REMPLAN Economy

The Alpine Shire is home to two of Victoria's alpine resorts (Falls Creek and Mt Hotham). Located in the North-East of Victoria, the Alpine Shire is home to a population of 12,211 people (as of 2015). The average age of the Alpine Shire is 48 years, which is the highest average age within the Greater Alpine Region. Key industry sectors for employment in the region are accommodation and food services, retail and health care.

Mansfield Shire



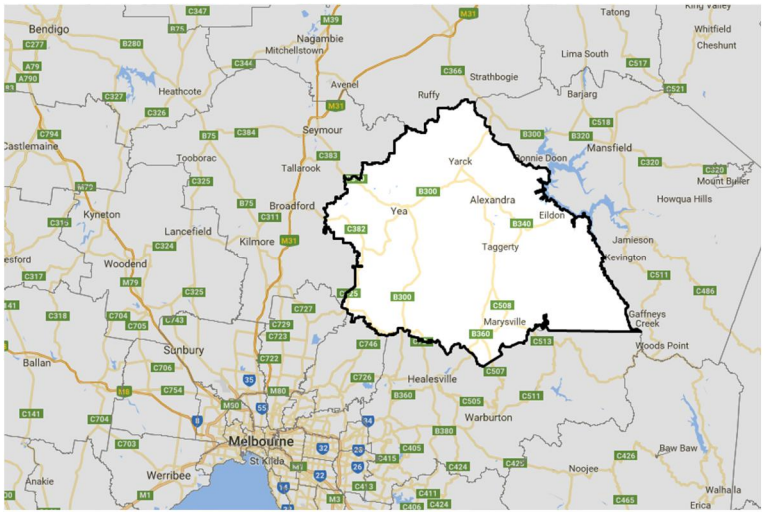
Descriptor	Value
Population (as of 2015)	8,556
Average age	45
Unemployment rate	2.7%
Gross Regional Product	$450m
Top 3 industries (employment)	▸ Accommodation & Food Services ▸ Education & Training ▸ Retail Trade

Source: REMPLAN Economy

The Shire of Mansfield is a local government area in the Hume region of Victoria, located north-east of Melbourne. Home to both Mt Buller and Mt Stirling, Mansfield has a population of 8,556 people (as of 2015). While the population has increased steadily since 2011, so has the average age which now stands at 45 years. The unemployment rate in the Mansfield Shire is relatively low at 2.7%, while the

key employment sectors are accommodation and food services, education and training and retail trade.

Murrindindi Shire



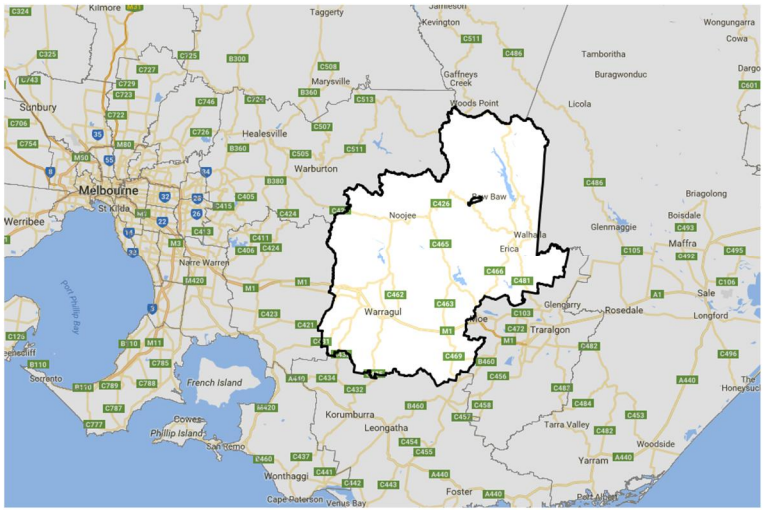
Descriptor	Value
Population (as of 2015)	13,074
Average age	45
Unemployment rate	4.6%
Gross Regional Product	$559m
Top 3 industries (employment)	▸ Agriculture ▸ Health care ▸ Education & Training

Source: REMPLAN Economy

The Shire of Murrindindi is a local government area in the Hume region of Victoria, located north-east of Melbourne, and is home to the Lake Mountain Alpine Resort. It covers an area of 3,889 square kilometres and, as of 2015, had an estimated population of 13,074. It includes the towns of Alexandra, Buxton, Eildon, Flowerdale, Kinglake, Marysville, Molesworth, Strath Creek, Taggerty, Yarck and Yea.

While parts of Murrindindi were badly affected by the 2009 Victorian bushfires, notably the towns of Marysville and Kinglake, it continues to make a significant contribution the Greater Alpine Region economy with a Gross Regional Product of $559m in 2016.

Baw Baw Shire



Descriptor	Value
Population (as of 2015)	46,762
Average age	40
Unemployment rate	4.9%
Gross Regional Product	$1,967m
Top 3 industries (employment)	▸ Agriculture ▸ Health Care ▸ Retail Trade

Source: REMPLAN Economy

The Shire of Baw Baw is a local government area in the eastern part of Victoria and is home to the Mt Baw Baw Alpine Resort. With a population of 46,762, the Baw Baw Shire is the largest LGA in the Greater Alpine Region both in terms of population and economic output. The estimated Gross Regional Product of the Shire was over $1.9 billion in 2016. The key industries in terms of employment are agriculture, health care and retail trade.

3. Visitors, employees and businesses

3.1 Visitor Analysis

The following analysis is based on data provided by the ARCC and the results of visitor surveys undertaken by EY.

Visitor surveys were conducted as an intercept study at various locations within the resorts including in the snow sports areas, around lift queues and inside resort buildings. As part of the process, members of the public were randomly intercepted by interviewers, and in some cases Alpine Resort Management Board (ARMB) and lift company staff (working on EY's behalf), and asked to complete a survey. The surveys were conducted during August and early September, and were completed on a tablet computer, either by the visitor themselves, or by the staff member who read out the questions. The table below provides a summary of the number of responses received for each resort.

Table 16 Visitor survey responses by resort

Resort	Number of responses
Mt Buller	312
Falls Creek	298
Mt Hotham	480
Mt Baw Baw	152
Lake Mountain	168
Total	**1410**

Source: EY Sweeney survey result

3.1.1 Visitation statistics

According to visitation data provided by the ARCC, Mt Buller/Stirling had the most visitors in the 2016 Winter season, with 323,932 people visiting the resort. This accounted for around 42% of the total visitation to all Victorian alpine resorts during the season.

Mt Buller/Stirling also accounted for the most number of visitor days, followed by Falls Creek and Mt Hotham. In terms of visitors' length of stay, Mt Hotham and Falls Creek visitors average 2.6 and 2.7 days respectively which was the highest among the resorts.

As there are no overnight facilities at Lake Mountain, all visitors to the resort were day-trip visitors.

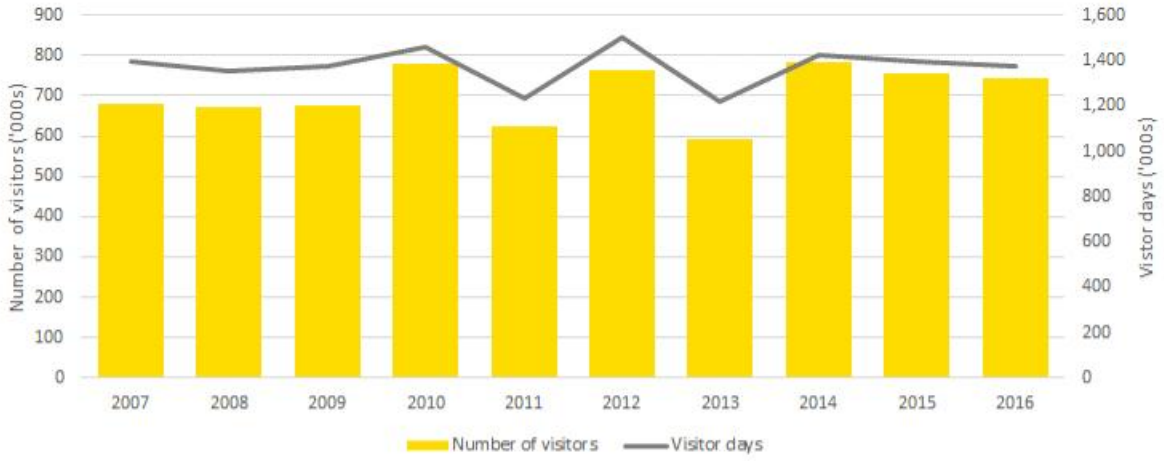
Table 17 Visitation statistics by resort

Resort	Total visitors	Number of visitor days	Average length of stay
Falls Creek	168,973	446,037	2.6
Lake Mountain	99,793	99,793	1.0
Mt Baw Baw	49,775	61,335	1.2
Mt Buller/Stirling	323,932	457,445	1.4
Mt Hotham	120,508	328,602	2.7
All resorts	**762,981**	**1,393,212**	**1.8**

Source: ARCC

Total visitation to Victoria's alpine resorts in the winter season has increased steadily over the past decade. Since the last economic contribution study was prepared in 2011, the total number of visitors across Victoria's alpine resorts has increased by 19%, while the number of visitor days has increased by 11% over that time.

Figure 6 Visitation statistics over time (All resorts)



Source: ARCC

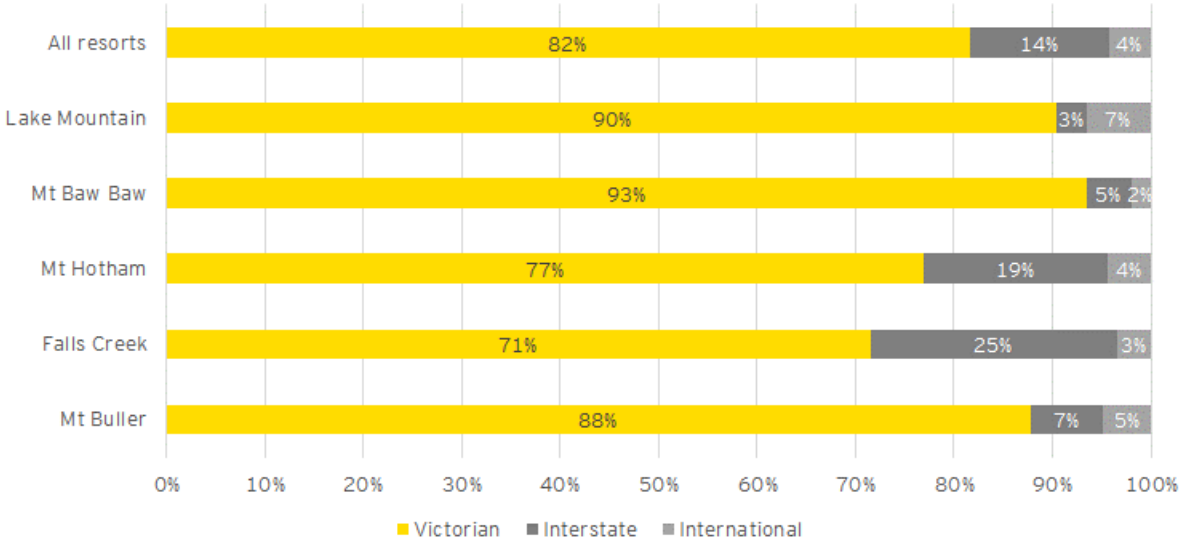
Since 1980, visitor trips to an alpine resort have grown at 0.2% per annum with visitor days growing at 0.7%. While this indicates that more people are visiting an alpine resort and are staying longer, the increase has not kept pace with Victorian population growth. Since 1980, population is tracking at an increase of 1.1% per annum. This has increased to 1.3% over the past two years.

3.1.2 Visitor demographics

Visitor origin – proportion of total visitors

The following figure provides a breakdown of the patrons by origin. The survey results reveal that across all of Victoria's alpine resorts, 82% of the visitors are from Victoria, while 14% are interstate visitors and the remaining 4% are from overseas.

Figure 7 Visitor origin as a proportion (%) of total visitors



Source: EY Sweeney survey results

Visitor origin – total visitors numbers

In terms of total visitor numbers (Table 18 below), Mt Buller/Stirling is most popular with international tourists with over 15,000 international visitors in the winter months. This represents almost half of all international visitors to Victoria's alpine resorts. Mt Buller/Stirling is also the most visited resort by

locals, with over 284,000 Victorian visitors over the 2016 winter season. Falls Creek is the most popular resort in terms of interstate visitation, with over 41,000 interstate visitors during the season.

Table 18 Total visitors by origin and resort

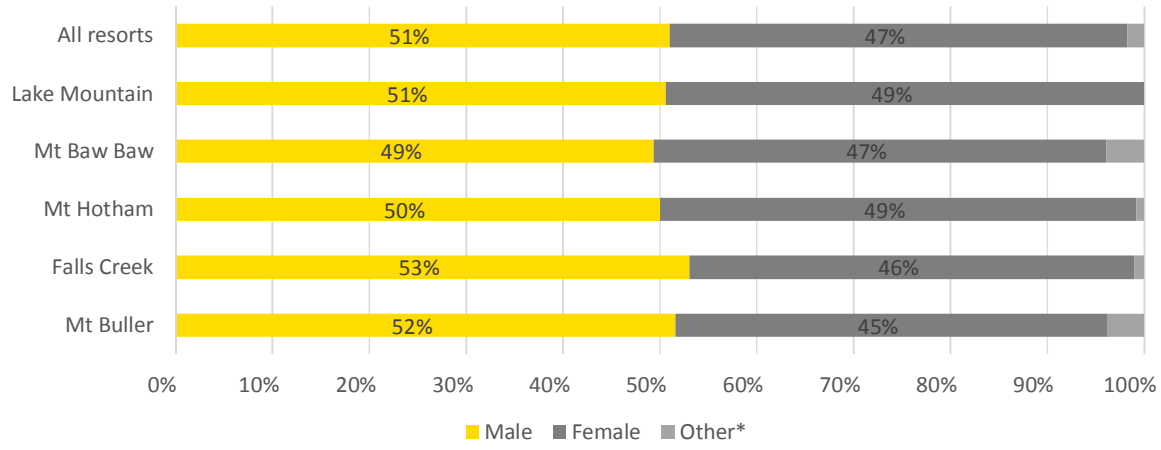
Resort	Victorian visitors	Interstate visitors	International visitors	Total visitors
Falls Creek	118,828	41,841	5,579	166,248
Lake Mountain	90,570	2,979	6,554	100,104
Mt Baw Baw	46,500	2,292	982	49,775
Mt Buller/Stirling	284,441	23,876	15,572	323,889
Mt Hotham	78,995	19,267	4,496	102,758
All resorts	619,335	90,256	33,183	742,774

Source: EY analysis

Gender

In terms of gender, the results were relatively consistent across all resorts with around 51% of visitors being male, and 47% females.

Figure 8 Gender by resort



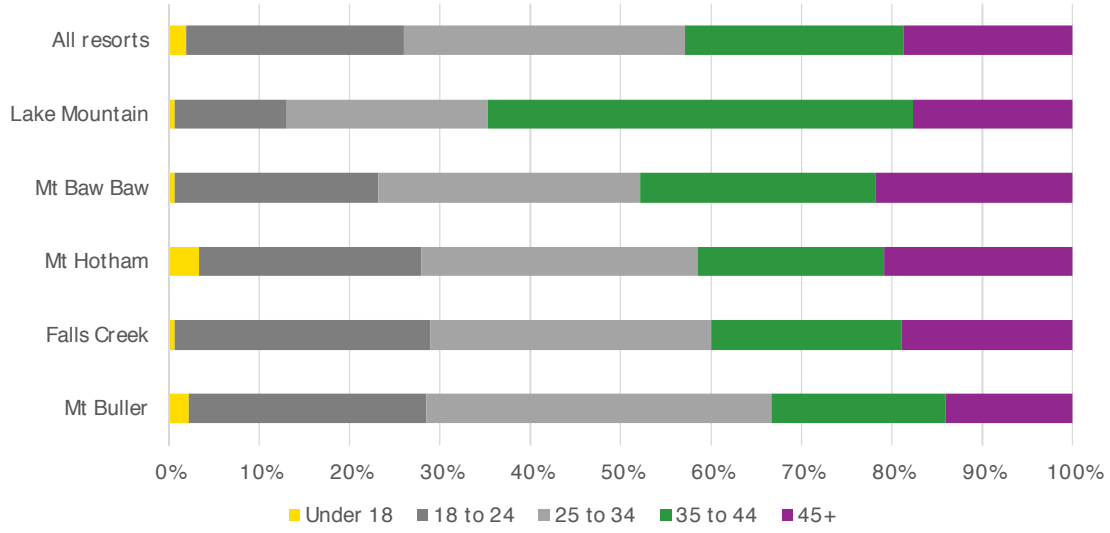
* chose not to disclose gender

Source: EY Sweeney survey results

Age of visitors

In terms of the age distribution, the survey found that the majority of visitors fall between the ages of 18 and 44, with the 25-34 age cohort being the most highly represented across all resorts. When considering the age distribution within individual resorts, Lake Mountain has a higher proportion of visitors aged 35 and above, while Mt Buller had the highest proportion of visitors aged 34 and below.

Figure 9 Visitor age by resort

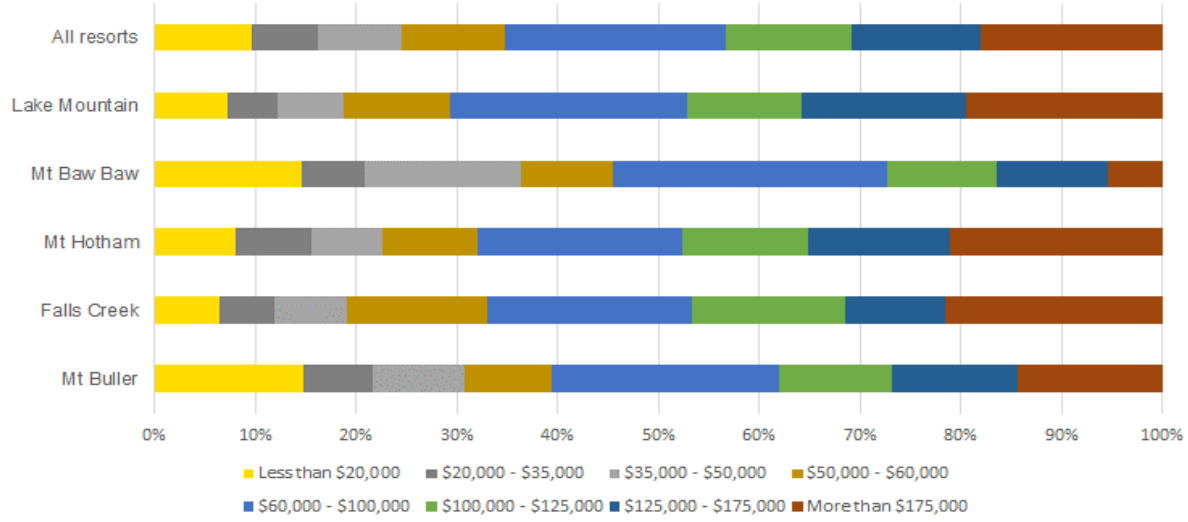


Source: EY Sweeney survey results

Annual household income (after tax)

In terms of annual household income, the results were relatively similar across all resorts apart from Mt Baw Baw which had a higher proportion of visitors with an average annual household income of $100,000 or lower.

Figure 10 Annual household income by resort



Source: EY Sweeney survey results

Comparison with other studies

The findings of the visitor analysis are largely consistent with another study on Ski Resort Satisfaction prepared for ARCC by Woolcott Research & Engagement in terms of visitor demographics.

The Woolcott Study found that approximately 53% of visitors were male, while 47% were female, which is roughly comparable to the findings of the visitor survey in which 51% were male, and 47% were female (2% of visitors chose not to disclose their gender).

The findings were also relatively similar in terms of visitor origin, with the Woolcott Study findings that around 4% of visitors across all resorts came from overseas, which is the same as what was found by the visitor survey.

3.1.3 Visitor experience

Visitor expenditure

Based on the results of the visitor survey, Victorian visitors spent an average of $476 per day across all resorts. This includes spending on food, shopping, travel, ski hire, lift passes, accommodation and other miscellaneous expenditures. Interstate visitors spent an average of $521 per day, while international visitors spent an average of $553 per day.

Table 19 Visitor expenditure by visitor type and resort

Resort	Victorian visitors	Interstate visitors	International visitors
Falls Creek	$574	$539	$516
Lake Mountain	$243	$336	$415
Mt Baw Baw	$393	$242	$421
Mt Buller/Stirling	$510	$507	$778
Mt Hotham	$520	$543	$489
All resorts	**$476**	**$521**	**$553**

Source: EY Sweeney survey results

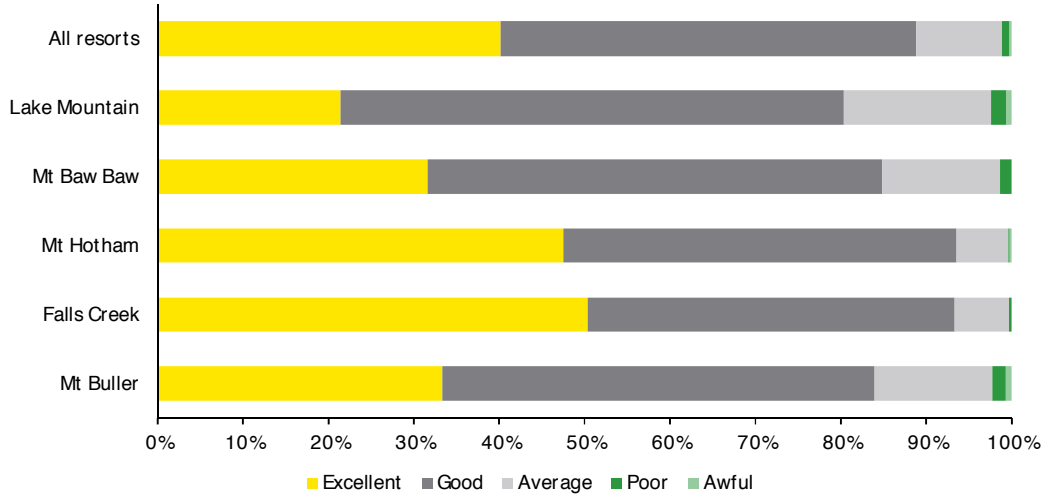
The survey results showed that there was a difference in the average visitor expenditure between the resorts, with expenditure in Falls Creek, Mt Buller/Stirling and Mt Hotham higher than in Lake Mountain and Mt Baw Baw. This can be attributed to both the relatively larger size and wider range of activities available at these resorts.

In terms of international visitor expenditure, there were limited responses from international visitors at each resort. Therefore, while they have been described individually for each resort in the table above, for the purpose of the economic contribution study, the average expenditure across all resorts ($553) has been used.

Visitor satisfaction

Visitors were asked to rate the quality of their experience at the resort for their trip. Across all the Victorian alpine resorts, 89% of visitors rated their experience as either excellent or good. Visitor satisfaction was relatively consistent across all the resorts, however it was particularly high at Mt Hotham and Falls Creek with 94% and 93% of visitors respectively rating their experience as excellent or good.

Figure 11 Visitor satisfaction by resort

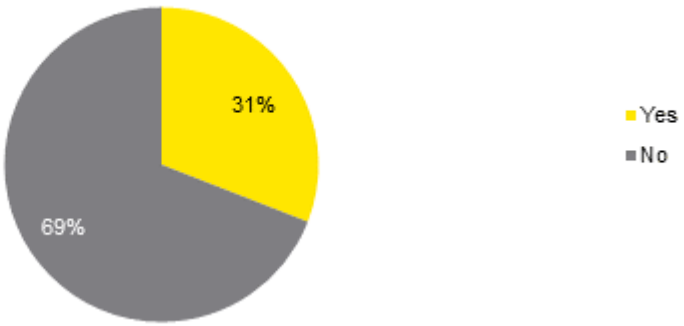


Source: EY Sweeney survey results

First time visitor

According to the visitor survey, approximately 69% of visitors had been to a Victorian alpine resort previously, with only 31% of visitors visiting for the first time.

Figure 12: First time visitors (%)

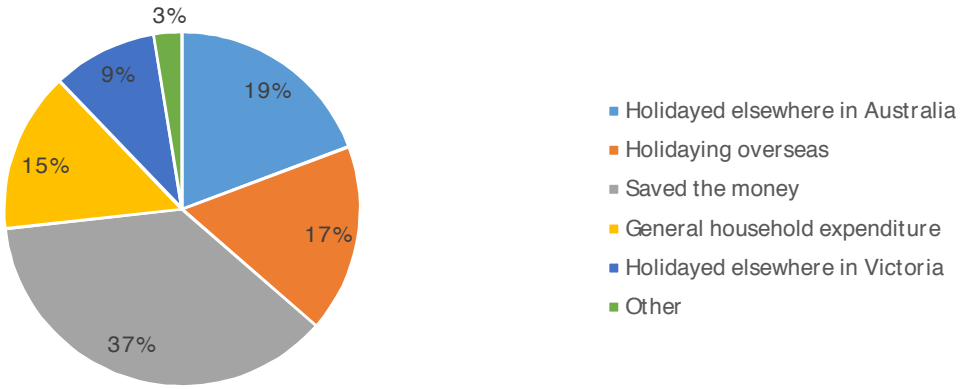


Source: EY Sweeney survey results

Alternative plans

Visitors were also asked how they would have spent their money had they not have visited alpine resorts. According to the survey, 37% of visitors would have saved the money and 19% said they would have holidayed elsewhere in Australia. Similarly, 17% said they would have holidayed overseas instead, while only 9% responded that they would have holidayed elsewhere in Victoria.

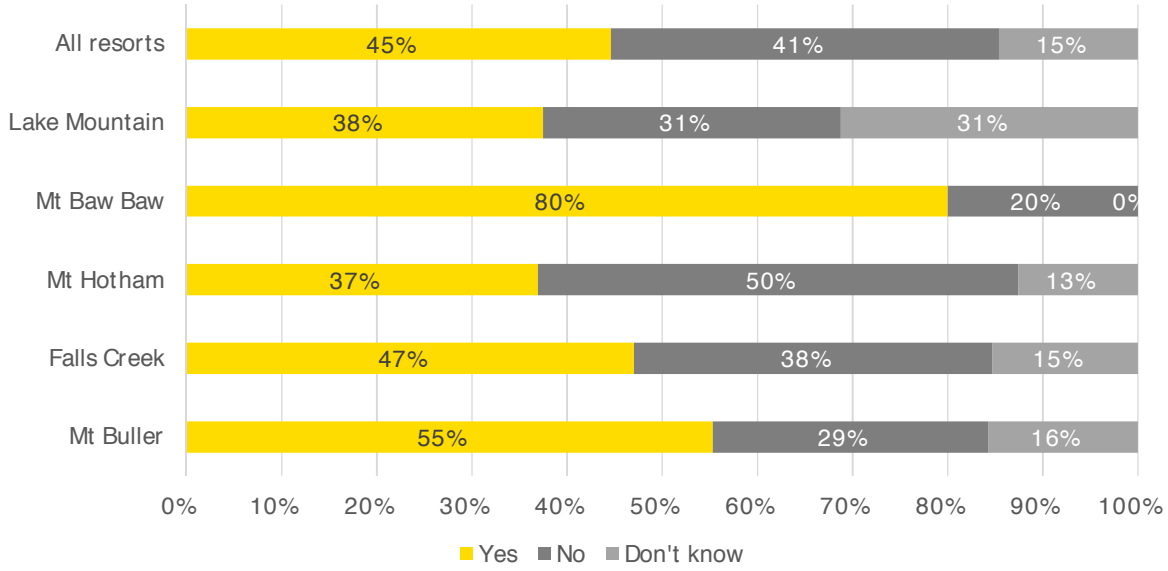
Figure 13 Alternatives to the Victorian alpine resorts



Source: EY Sweeney survey results

Interstate and overseas visitors were also asked whether they would have visited Victoria at this time of the year if they had not been visiting the alpine resorts. Interestingly, around 80% of Mt Baw Baw visitors answered 'Yes'. Across all resorts, 45% of visitors responded that they would have still visited Victoria at this time of the year, while 41% said they would not have.

Figure 14: As an (interstate/overseas) visitor, would you have visited Victoria at this time of year if you were not visiting the alpine resorts?



Source: EY Sweeney survey results

3.2 Employee survey findings

The following analysis is based on the results of the employee survey undertaken by EY.

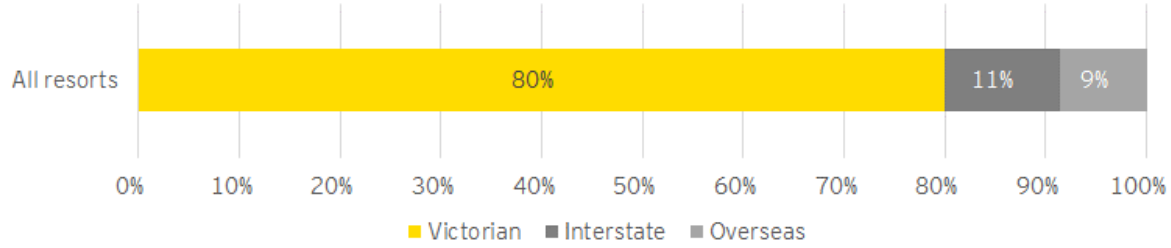
The employee survey was conducted online, between early September and October. All respondents were either employees at an alpine resort in Victoria, or employed nearby to serve the alpine region. Participants were recruited through ARMB contacts, who passed the link on to businesses in the resort, and through direct contacts at lift companies (as major employers in the resorts). Some businesses provided their employees with time and access to the online survey on-site, and other employees would have done the survey in their own time from a personal device. As an incentive to participate, all employees had the option to enter a prize draw for one of five $100 gift cards. 220

responses across all resorts were collected. Employee survey data has been consolidated with the results for all resorts presented below.

Permanent place of residence

Employees surveyed for the study were largely permanent residents from Victoria (80%). 11% of surveyed employees were from other Australian states and the remaining 9% of employees are international residents. Of the overseas employees, the United Kingdom was the most popular destination listed as country of origin.

Figure 15 Employee origin

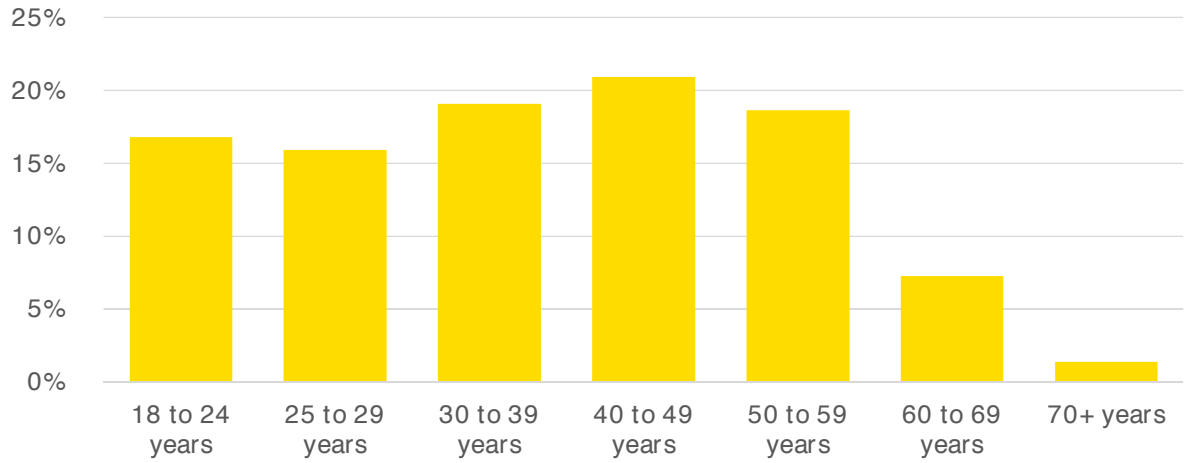


Source: EY Sweeney survey results

Age

The employee survey was completed by 220 individuals employed in the alpine region during the winter season. The ages of employees is distributed between18-70+, with the most common age bracket being 40-49 years (21%). This was followed closely by 30-39 years (19%) and 50-59 years (19%). Results from the survey show that 33% of employees are under 29 years of age with a further 59% aged between 30 and 59.

Figure 16 Employee age

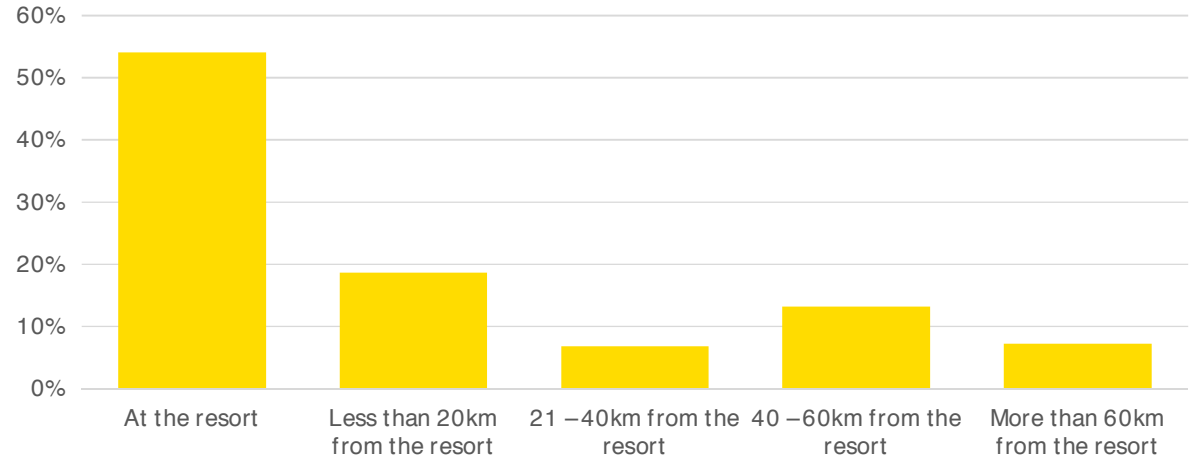


Source: EY Sweeney survey results

Residence during winter season

While working the winter season, 54% of employees choose to stay at the resort for the period of their employment. The next popular response to this question was less than 20km from the resort.

Figure 17 Employee accommodation

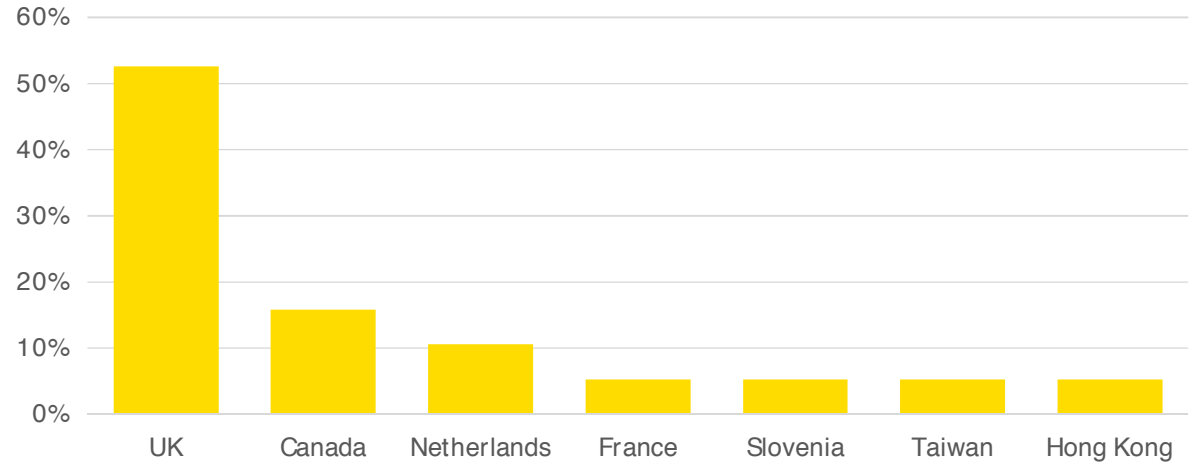


Source: EY Sweeney survey results

Overseas employees

The majority of overseas employees at Victoria's alpine resorts originate from the UK.

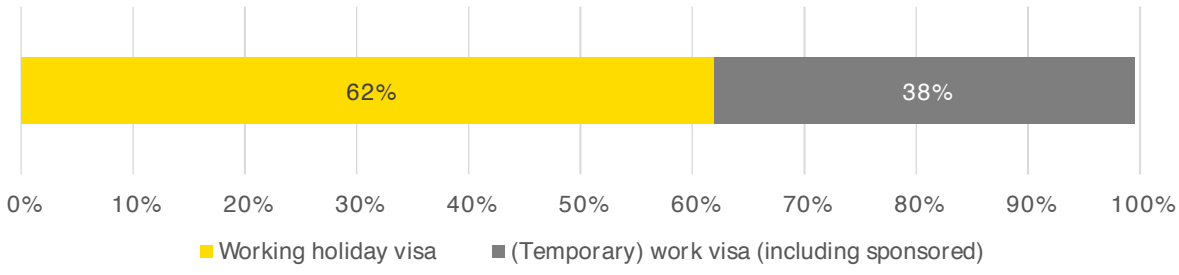
Figure 18 Overseas employees – Country of origin



Source: EY Sweeney survey results

Approximately 62% of overseas employees are on working holiday visas, with the remainder on temporary work visas.

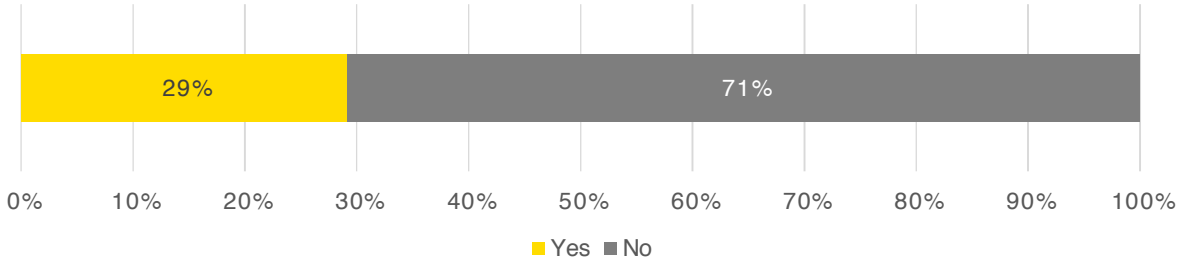
Figure 19 Visa type for overseas employees



Source: EY Sweeney survey results

Survey results show that the majority (71%) of overseas employees organised their own visa to work in the Victoria alpine resorts.

Figure 20 Visa arrangement

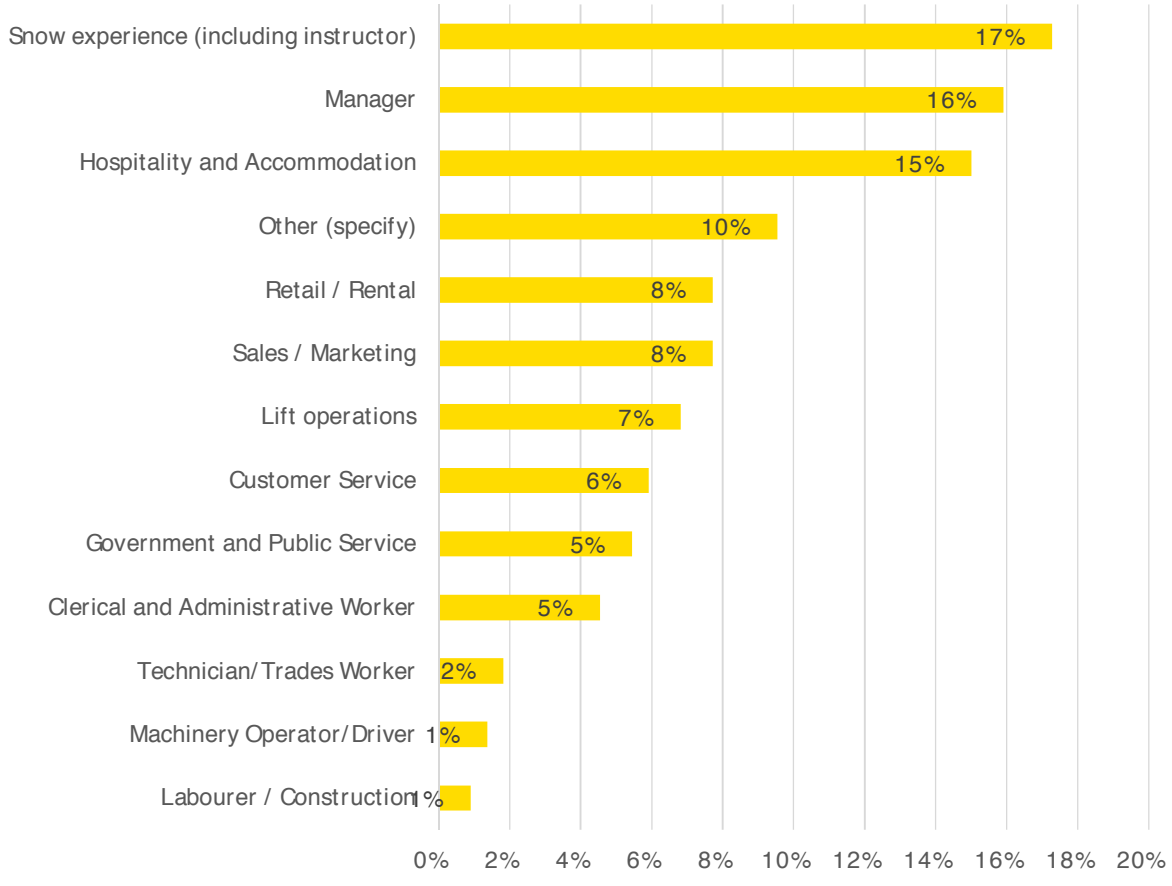


Source: EY Sweeney survey results

Occupation

Based on the results of the employee survey, it is estimated that the most common form of occupation is snow experience (including instructors), which accounts for around 17% of total employees at the resorts. Managers and hospitality and accommodation account for 16% and 15% of employment respectively.

Figure 21 Employee occupation

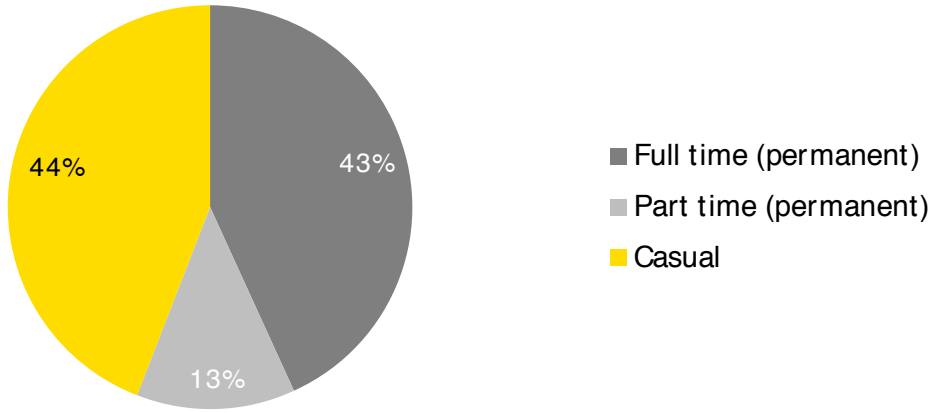


Source: EY Sweeney survey results

Type of employment

Around 44% of employment at the Victorian alpine resorts is made up of casual employment, with 43% of employees on full time employment. Only 13% of employees are employed on a part time basis.

Figure 22 Type of employment



Source: EY Sweeney survey results

3.3 Business survey findings

Business surveys were distributed electronically to businesses within the alpine resort and in towns near the resort. This survey targeted a person in the business with knowledge of sales and workforce figures. The link to this survey, along with details about it, was sent to the alpine resorts industry Advisory Group (ARIAG) members and ARMBs to distribute to employers in the alpine region. The employer survey was completed by eight organisations in total. Due to the limited number of responses not meeting an appropriate level of statistical significance, the results have not been included in this analysis.

Source: ARCC

4. Economic contribution and employment

The estimated economic contribution of Victoria's alpines resorts can be split between the direct and indirect impacts. As discussed in the methodology sections, the direct impact captures the spending increase in Victoria (or relevant LGA) that is attributable to the resort, while the indirect impact measures the 'flow-on' or multiplier effects of the direct expenditure throughout the Victorian economy.

4.1 Approach to economic contribution

The approach for this economic contribution and benefit study is presented below

4.1.1 Define key measures

Economic contribution is a measure comprising all market-related expenditure generated by a specified industry or an activity. Economic contribution studies do not consider the substitution impacts to other industries (i.e. what might happen to expenditures if the specific industry or activity were lost). As such economic contribution is a gross measure rather than a net measure.

Three common indicators of an industry or economic size or value are:

- **Gross industry output –** Market value of goods and services produced, often measured by turnover/revenue. Gross output is also referred to as 'gross economic contribution' or 'gross expenditure'
- **Value added (Gross State/Regional Product)–** Market value of goods and services produced, after deducting the cost of goods and services used
- **Jobs –** Number of jobs generated by an industry or attraction.

All three measures are valuable in their own right. Industry output is a measure of production, value add is a measure of wealth generation, and arguably, employment is a measure of the distribution of income.

In comparing an industry's size against others, it is generally accepted to refer to the value the industry adds to the economy (defined as industry value add). As the industry value add measures economic activities, net of the costs of production, from the industry's outputs (that is, inputs sourced from other sectors), this avoids the inclusion of revenues to other industries and any associated double counting. In practice, industry value add largely comprises wages, salaries and the operating surplus of an industry (i.e. the industry's income).

This study looks at all three measures, but attention should be placed on industry value add measures when making comparisons to other industries. The value add measure is commonly put forward as the most appropriate measure of an industry's contribution to the State's economy (GSP).

4.1.2 Define the industry

This study looks at alpine resorts, which is defined as an area that has been primarily developed for snow sport activities. This may include diverse supporting infrastructure such as accommodation, ski lifts, ski hire, restaurants and other businesses; alternatively an alpine resort may simply comprise snow play areas with little or no other supporting infrastructure. Alpine resorts provide significant benefit not only to the resort area itself, but also to surrounding towns, many of which rely heavily on the industry for employment and local business activity.

The study found that the Victorian alpine resort industry is made up of the following components:

Component	Description
Visitors	The visitors surveyed included a mix of Victorian, interstate and international guests to the alpine resorts. In winter, visitors participate in a wide range of activities including skiing, snowboarding, tobogganing and snowshoeing.
Employees	Individuals employed on a full time, part time or casual basis in the Victorian alpine region during the winter season.
Businesses	The businesses operating in the alpine resorts cover a spectrum from large resort companies employing over 1,000 staff to one-person operators turning over less than $50,000.

For the purposes of this study, only visitor expenditure has been quantified.

4.1.3 Data gathering

The initial step was to design a survey instrument which would generate the information required from visitors to the region plus employees and businesses in the Victorian alpine regions over the peak of the winter season. For this study, the survey was conducted in the months of August and September at the peak of the 2016 winter season.

Visitors to the mountains were questioned about their purpose of visit, length of stay and expenditure to assist in calculating their economic contribution. Visitors were also asked demographic information, levels of satisfaction and attitudes to the region in the winter season.

Surveying was done infield (on the mountains across different weekends) across all of the resorts. The process was conducted with tablets, where respondents entered their details and answers directly into the survey while the staff member waited and provided assistance if required.

Surveys were also conducted with employees and businesses within the alpine resorts and in towns near the resorts. The employee survey findings were used to calculate the benefits of employee income and spending to Victoria and LGAs that had been directly linked to activities associated with the Victorian alpine resorts.

In total, 1,410 surveys were undertaken with visitors, 220 surveys with employees and 8 surveys with businesses. Due to the limited number of responses from businesses, they have not been used in the calculation of economic contribution. The economic contribution calculation are based on visitor surveys. The low business survey responses do not therefore impact on the economic contribution calculations. A copy of the surveys have been included in Appendix E.

4.1.4 Estimate economic contribution

Direct impact

For the purposes of this study, only the economic contribution attributable to visitor expenditure has been considered. Therefore, the direct impact captures the direct spending increase in Victoria (or relevant LGA/region) that is attributable to visitor expenditure at each of Victoria's alpine resorts. This has been calculated based on the results of the primary market research conducted by EY and data provided by ARCC. The direct expenditure for all visitors is derived from:

- The number of visitors to the resort
- The duration of stay of these visitors
- The level of expenditure of these visitors during their stay.

Indirect impact

The indirect impact measures the flow-on effects of the direct expenditure throughout the economy. The additional direct spending produces a second round of spending and income generation. For example, additional money spent at restaurants is allocated between the additional material inputs (such as food and drink), wages, and profits of the proprietor. Wages spent by the employees for

example, on household items, circulates the money throughout a broader section of the economy creating indirect benefits.

This study adopts an input output approach to the calculation of indirect (wider) economic impacts. REMPLAN was engaged to develop tailored input/output multipliers that reflect the specific characteristics of the economy for each of the relevant LGAs and for Victoria[2].

REMPLAN is essentially an input-output model of the Australian economy and regional economies. Input output models trace the revenue and expenditure flows that link industries and workers within and outside economic regions. For instance, an increase in output in one industry (the "direct impact") would give rise to demand for inputs from other industries (industrial effect) as well as labour (consumption effect). In turn, these support industries would demand further inputs, labour, and so on. This is the so-called multiplier or indirect effect.

REMPLAN's core data set is based on the latest Australian Bureau of Statistics (ABS) national accounts figures of the Australian economy, coupled with the latest Census data. REMPLAN's key advantage over other input output models or "off-the shelf multipliers" is that it can be region specific. For instance, in the past, economic practitioners have used national multipliers produced by the ABS. It should be noted that the ABS has not published national input output multipliers since 1998-99 and does not plan to compile and reissue this table because of concerns over the abuse of them in economic assessments. In particular, the ABS notes that its multipliers calculated from the national input output table are not appropriate for use in economic impact analysis of projects in small regions.

For small regions, multipliers tend to be smaller than national multipliers since the inter–industry linkages are normally relatively shallow, since they usually don't have the capacity to produce the wide range of goods used for inputs and consumption, instead importing a large proportion of these goods from other regions.

REMPLAN addresses these issues by factoring in these leakage effects, based on assessing the current structure of the regional economy (using workforce data).

It is acknowledged that input output models are often criticised when used in economic impact-assessments as they do not consider capacity constraints in the economy (e.g. full employment). Such constraints limit the extent to which economic impacts can increase in a linear fashion with changes in demand. The alternative CGE approach[3] addresses some of these issues, although the nature and scale of this study did not warrant the use a detailed CGE analysis at this time.

4.2 Economic contribution of Victorian alpine resorts

4.2.1 Economic contribution to Victoria

The Victorian alpine resorts also have a broader impact across the state with the analysis showing that it contributes $790 million to the Gross State Product (GSP) of Victoria, and almost 7,900 jobs across the state. Of the 7,900 jobs, approximately 4,650 were directly employed in industry supporting winter activities in the alpine region. This estimate includes full time, part time and casual work in industries such as tourism support and tours, accommodation, food and beverage and retail. The indirect jobs supported by the alpine resorts are spread across the retail, accommodation, transport and manufacturing sectors.

[2] REMPLAN modelling provides the ability to calculate the value of gross regional product and to assess likely economic impacts of proposed changes. REMPLAN can foster an understanding of the interdependent nature of the local economy.
[3] These complex models are based on theoretical concepts and account for profit maximisation, household consumption functions, terms of trade effects, labour market adjustments etc. These models take into account changes in prices and wages with increases in demand. As such, their economic impact results are generally much more conservative relative to input-output analysis as capacity constraints are taken into account by increases in prices and wages.

Table 20 Economic contribution to Victoria (all figures presented in $2016/17)

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$709	$1,005	$1,714
Employment (Jobs)	4,652	3,240	7,892
GSP (Value-added) ($m)	$316	$474	$790

Source: EY analysis

The table below shows that in comparison with the previous study undertaken in 2011. Both direct expenditure and GSP (value add) have increased, while total employment has declined. The increase in direct expenditure and value-added is being driven by increases in total visitation and average daily expenditure. While employment has declined in 2016 compared to the 2011 study, it is important to note that the 2011 figures have been converted to annual equivalent terms with recognition in the 2011 report that employment may have been overstated. Additionally, due to technology advancement and business efficiencies, employment multipliers have decreased in recent years (i.e. there is now less job creation from increase direct expenditure).

Table 21 Economic contribution comparison (2011 vs 2016) (all figures presented in $2016/17)

Total impact	2011	2016	% change
Gross direct expenditure ($m)	$692	$709	2%
Employment (Jobs)	9,754	7,892	-19%
GSP (Value-added) ($m)	$620	$790	27%

Source: EY analysis

As can be seen in the table below, since 2011, the average daily expenditure of Victorian visitors across all resorts has increased by 28%, interstate visitors by 34% and overseas visitors by 44%.

Table 22 Comparison of average daily expenditure by visitor origin (All resorts) (all figures presented in $2016/17)

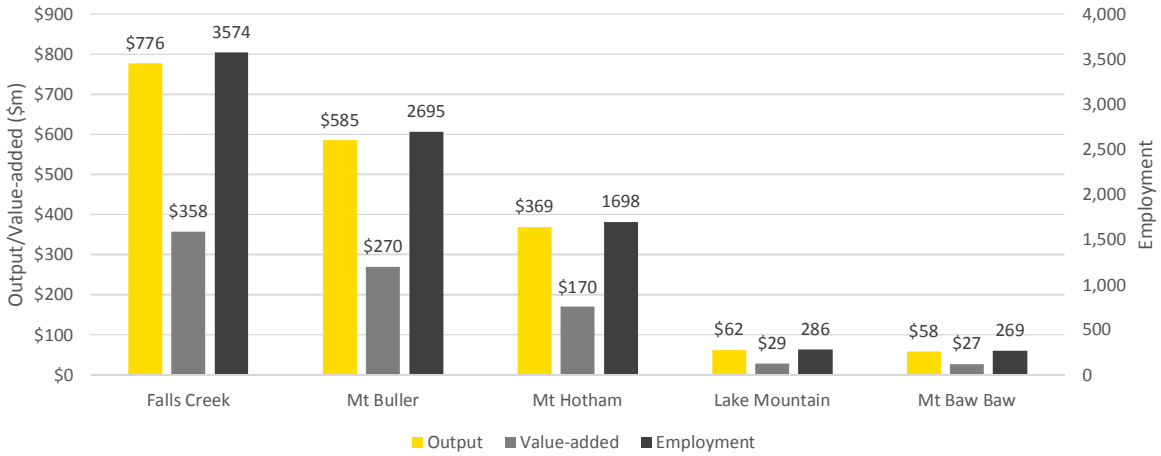
Visitor origin	2011	2016	% change
Local	$371	$476	28%
Interstate	$388	$521	34%
Overseas	$385	$553	44%

Note: Expenditure comparison includes all transactions in resort including meals, shopping, hire, local travel, accommodation and 'other'. The 2011 study appears to include additional expenditure in the direct gross expenditure calculation.

Source: EY analysis

In terms of the economic contribution of each resort to the Victorian economy, Falls Creek accounted for $358 million in value-added and 3,574 jobs. 2,107 of these jobs were created on the mountain supporting tourism, accommodation, food and beverage and retail industries. A further 1,467 indirect jobs were created from the flow on expenditures related to wider activities in Falls Creek. While Mt Buller/Stirling had significantly more visitors than Falls Creek (323,932 visitors compared to 168,973 visitors), those who visited Falls Creek often stayed longer with the average length of stay for Falls Creek visitors being 2.6 days compared to 1.4 days for Mt Buller/Stirling visitors. This increased length of stay resulted in greater direct spend and economic contribution to Victoria.

Figure 23 Total economic contribution (direct and indirect) to Victoria by resort (all figures presented in $2016/17)



Source: EY analysis

4.2.2 Economic contribution to the Greater Alpine Region

The Victorian alpine resorts contribute over $543 million in value added to the Gross Regional Product (GRP) of the Greater Alpine Region and over 6,000 jobs through both direct and indirect impacts.

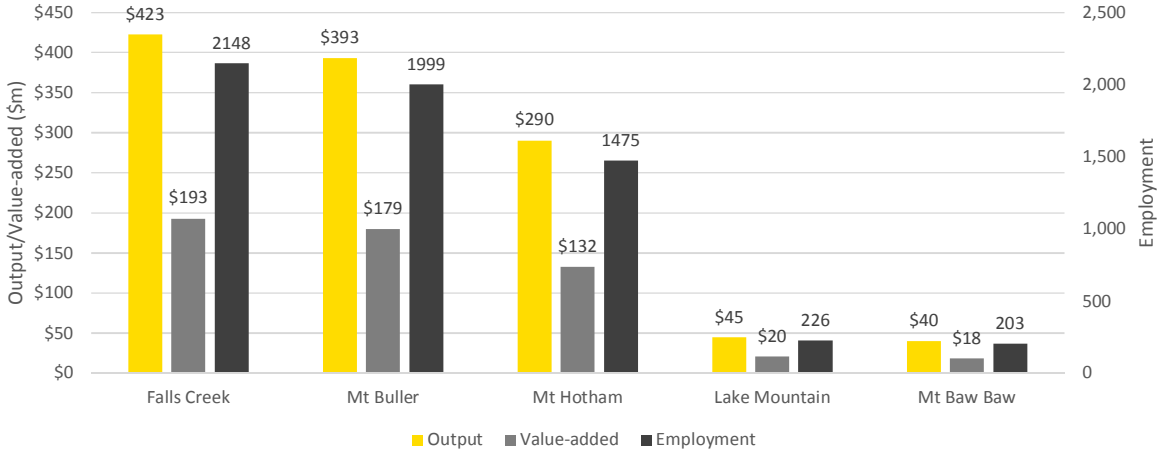
Table 23 Economic contribution to Greater Alpine Region (all figures presented in $2016/17)

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$709	$482	$1,191
Employment (Jobs)	4,278	1,774	6,052
GRP (Value-added) ($m)	$311	$232	$543

Source: EY analysis

In terms of the economic contribution of each resort to the Greater Alpine Region, Falls Creek was the largest contributor accounting for over $193 million in value added, and 2,148 jobs to the region.

Figure 24 Total economic contribution (direct and indirect) to the Greater Alpine Region by resort (all figures presented in $2016/17)



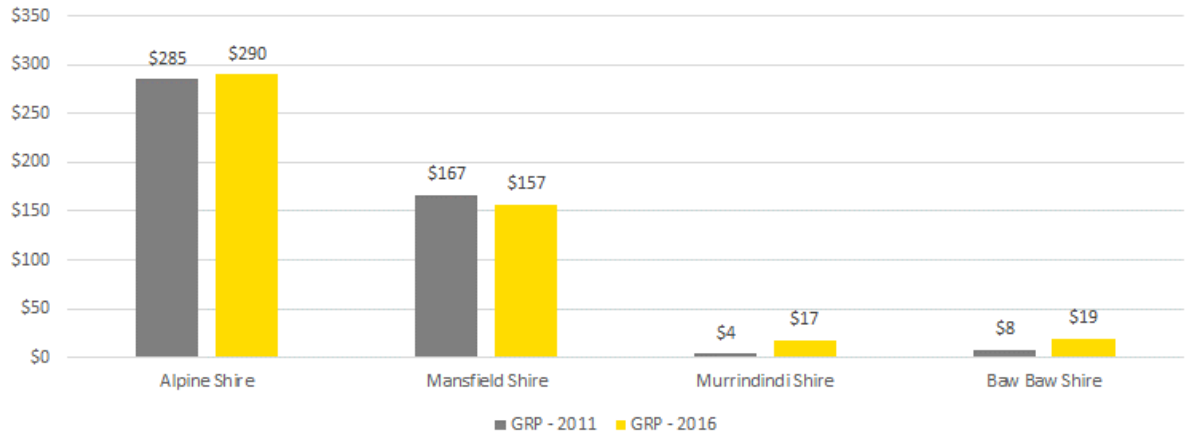
Source: EY analysis

4.2.3 Economic contribution to Local Government Areas (LGAs)

In terms the Victorian alpine resorts' economic contribution to the various LGAs, Falls Creek and Mt Hotham resorts contributed around $290 million to the Gross Regional Product (GRP) of the Alpine Shire (up from $285 million in 2011 when converted to $2016/17). Mt Buller/Stirling's contribution to

the GRP of the Mansfield Shire representing a decrease from 167 million when converted to $2016/17).

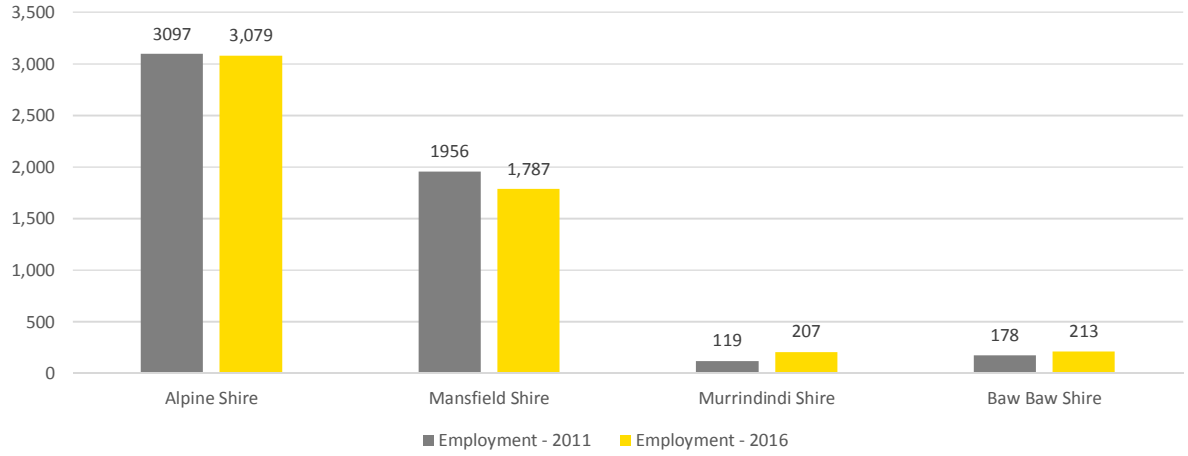
Table 24 Value added by Local Government Area (LGA) (all figures presented in $2016/17)



Source: EY analysis

It is important to note again that while employment has declined in 2016 compared to the 2011 study, the 2011 figures have been converted to annual equivalent terms with recognition in the 2011 report that employment may have been overstated.

Table 25 Employment by Local Government Area (LGA)



Source: EY analysis

4.3 Comparison with 2011 Winter Economic Contribution study

The previous Winter Economic Contribution conducted in 2011 estimated that the Victorian alpine resorts contributed approximately $620 million to the Gross State Product of Victoria (when converted to $2016/17). As can be seen in section 4.2.1, it is estimated that in 2016 that figure has increased to $790 million (in $2016/17).

This is primarily a result of increased visitation and expenditure. Since 2011, total visitation across Victoria's alpine resorts has increased by 19%, while average daily expenditure has increased by over 37% according to visitor survey results.

While visitation growth and expenditure are the primary reasons for the increase in economic contribution from the alpine region, some of the difference may be explained by the difference in economic modelling approaches. In the 2011 study, the economic contribution was estimated using

the National Institute of Economic and Industry Research (NIEIR) regional econometric model, while the current study utilises the REMPLAN Economy model. Both models use input/output multipliers to estimate economic contribution. However, changes to economic conditions and the approach in calculating multipliers mean multipliers will have changed since 2011. For example with technology advances and improved business efficiency, employment multipliers have decreased.

It is also important to note again that the employment figures calculated in the 2011 study have been converted to annual equivalent terms, whereas the employment figures calculated in this study refer only to the employment generated during the 2016 winter season. For this reason, when comparing employment results, the 2011 employment figures are larger than those presented for 2016.

With the exception of the change in definition for employment, we expect any other differences to be minor. However it is still advised that any comparisons should be treated as indicative only.

5. Broader social and recreational benefits

Economic contribution studies do not fully capture the value that Victoria receives from the alpine resorts' operations. This section presents the broader social and recreational value generated by the alpine resorts for the Victorian community that has not been captured by the economic contribution analysis. These benefits consist of:

- **Use value** – In addition to the value represented by the price paid for a trip to an alpine resort, obtained from the direct cost of the trip (i.e. value associated with recreation, health, education, the environment, tourism, productivity improvements and community pride)

- **Non-use values** – Value that the Victorian community assign to the alpine resorts, even if they do not use the resort's facilities (i.e. existence value).

5.1 Use value

The price paid for a trip to the snow (captured in Section 3) only represents a portion of the value that visitors received from a trip to an alpine resort. The difference between the maximum entry price a visitor is willing to pay and the actual price paid for their trip is referred to as the consumer surplus of visitors. If a visitor would be willing to pay more than the ticket price, then they are obtaining more benefit from their visit than is captured in the ticket price.

This section estimates the broader social and recreational value (over and above the cost of a trip to the snow) that visitors receive from making a visit to an alpine resort. EY approximates this additional value by aggregating:

- Travel and time costs – Costs that visitors incur in order to make a trip to the snow. Note that this represents a conservative estimate of overall consumer surplus[4]. Additional value, over and above cost of a trip and travel and time costs is likely for some visitors (see Appendix C).

- Health: The avoided health costs associated with physical and mental health benefits from a trip to the snow.

The sum of these two estimates is assumed to equate to the additional use value (above the cost of a trip) attributable to the alpine resorts.

5.1.1 Travel and time costs

This method assumes that the value of the alpine resorts is reflected in how willing people are to travel to visit a resort (i.e. representative of the "price" of getting to the resort). EY applied the travel cost method to estimate the cost that visitors incurred to make a trip to the snow. These costs are assumed to consist of wage/time costs (i.e. assumed travel time (adult visits only) **x** minimum hourly wage).

This study uses estimated travel costs (i.e. foregone wages or cost of leisure time) as a conservative proxy for consumer surplus.

The consumer surplus of visitors is the difference between the maximum entry price a visitor is willing to pay and the actual price paid for their trip to the snow. If a visitor would be willing to pay more than the ticket price, then they are getting more benefit from their visit than is captured in the ticket price (see below). This represents a broader social and recreational value in addition to the price paid for a trip to the snow (as captured in the economic contribution estimate) and travel costs incurred making a visit to Victoria's alpine resorts.

EY estimates that the value attributable to the alpine resorts was **$108.7 million** in the 2016 winter season based on the assumptions and detail presented in Appendix B.

[4] Consumer surplus is a net benefit that can be defined as the difference between what a consumer is willing to pay and the actual price paid.

Table 26 Travel cost estimate

	Time costs ($m)	Transport costs ($m)	Total ($m)
Falls Creek	$17.9	$12.6	$30.4
Lake Mountain	$4.6	$3.2	$7.8
Mt Baw Baw	$2.4	$1.7	$4.0
Mt Buller/Stirling	$25.1	$17.6	$42.7
Mt Hotham	$13.9	$9.8	$23.7
All resorts	**$63.9**	**$44.8**	**$108.7**

Source: EY analysis

5.1.2 Health Benefits

There is a large and increasing body of evidence showing that contact with nature and parks provide a wide range of physical and mental health benefits[5]. Other recent research suggests that access to parks can help people increase their level of physical activity[6] and being close to green space is associated with reduced depression, anxiety and other related conditions. Thus, recreation and amenity services that Victoria's alpine resorts provide can contribute to the prevention of physical and mental health costs and improve health and lifestyle outcomes.

Based on a per person estimate of health cost from physical inactivity of $1,660[7], high-level estimates show that approximately $61.3 million in avoided health costs can be associated with physical activity available at the alpine resorts. This figure has been derived based on the assumptions presented in Appendix C.

5.1.3 Environmental benefits

The forests, woodlands and wetlands of Victoria's parks improve water quality by naturally purifying and filtering water and reducing the release of soil sediment, pollutants and organic matter that would otherwise reach our waterways.

The Victorian alpine resorts help play an important role in reducing the level of nutrients and toxicants that affect water quality and ecosystem health in our urban waterways and bays. It is estimated that the benefits of water filtration by Melbourne's metropolitan parks network equates to approximately $2,150 per hectare per year[8]. Applying this figure to all the alpine resorts sees a benefit of $2.4 million per year in water purification and filtration benefits.

5.2 Non-use value

Non-use value is the value that the Victorian community assigns to the alpine resorts, even if they do not visit the attractions. People can value a facility, service or event even if they do not attend the offering in person. This is often known as the existence (non-use) value one obtains as a result of the presence of a facility, service or event within one's locality.

5.2.1 Existence value

Placing a value on civic pride associated with the alpine resorts is problematic. This would ideally involve contingent valuation and surveys of the Victorian population to understand how much Victorians would be willing to pay to maintain the alpine resorts' operations in Victoria, even if they do not attend any of the locations. This level of primary research is outside the scope of this engagement. As such, EY has relied on existing publicly available studies to develop a proxy measure (see Appendix F).

[5] Townsend M and Weerasuriya, R 2010 Beyond Blue to Green, The benefits of contact with nature for mental health and well-being. Melbourne, Australia. Maller, C., Townsend, M., Brown, P. and St Leger, L., Henderson-Wilson, C., Pryor, A., Prosser, L., Moore, M. 2008. 'Literature Review: Healthy Parks Healthy People: The Health Benefits of Contact with Nature in a Park Context - A Review of Current Literature'. 2nd Edition. Deakin University. Melbourne, Australia.
117 Harnik. P.H. and Welle. B, 2009 Measuring the Economic Value of a City Park System, Trust for Public Land
[6] Harnik. P.H. and Welle. B, 2009 Measuring the Economic Value of a City Park System, Trust for Public Land.
[7] Medibank Private, 2008, The Cost of Physical Inactivity
[8] Marsden Jacobs Associates 2014, Valuing the Water Services provided by Victoria's Parks, Report prepared for Parks Victoria

EY estimates the annual existence value of the alpine resorts operations to the Victorian non-visiting community to be **$2.7 million**. This estimate is based on the following:

- Existence value – Based on the estimated values presented in previous relevant studies (see Appendix F). For this study, an estimate of **$33.83** per adult has been adopted

- Number of non-use adults – the number of non-use adults in the vicinity of the alpine resorts is assumed to be equal to the total population of the Greater Alpine Region (**80,489 adults)**. This is a conservative estimate, given that the area of influence is likely to extend well beyond the boundary of the Greater Alpine Region, with many other Victorians valuing the existence of the alpine resorts.

EY recognises that use of secondary information from studies conducted in other jurisdictions as well as on facilities that are of a different nature to visitors to the snow, limits the analysis.

Source: ARCC

6. Growing economic and social benefits

While the alpine resorts contribute to the economic and social fabric of Victoria, opportunities exist to expand the current offering and increase the contribution of the region. Key stakeholders have identified a range of opportunities that will assist the alpine region increase their economic and social contributions including:

- The need to continually raise awareness of the unique, value for money experience in the alpine region. Through increased marketing and promotion, there is an opportunity to increase visitor numbers by educating Victorians on the ease of access to the snow and existing activities for all visitors (day and overnight)
- Leverage strong relationships and collaboration with organisations such as Visit Victoria to assist in the promotion of the alpine regions as a destination of choice (including surrounding towns such as Bright and Mansfield)
- Develop innovative products to improve market share (within Vic, across NSW and internationally)
- Target new markets with growing visitation from countries such as China and India
- Continue to expand the green season offering (services and infrastructure) and begin commercialising activities.

The development of these opportunities will be important in laying the foundations for continued growth. A SWOT analysis was undertaken with key stakeholders and is presented in Appendix F.

The stakeholder engagement process found that the implementation of identified opportunities and change was challenging due to limited opportunities for cohesion or a holistic strategy on marketing and commercialisation of the alpine resorts (sector wide) spanning both the white and green seasons.

Stakeholders noted that it is common for businesses to deliver their service with little consultation or cooperation with other groups resulting in duplication of services and inefficient business processes.

Currently, stakeholders from a range of different businesses and locations are delivering their offering with little consultation or cooperation with other groups resulting in duplication of services and inefficient business processes resulting in high prices for certain services.

Examples of this duplication and inefficiency are most visibly present in respect of entry prices, parking, vehicle transfers for patrons from arrival points to their accommodation, retail, ski hire and lift ticketing and food and beverage offerings on the mountain. Stakeholders believed that a blueprint / roadmap for the coordination of commercial relationships across various resorts be undertaken could help improve services provision for customers.

Appendix A REMPLAN outputs (EY analysis)

All Resorts

Table 27 Economic contribution of Victoria's alpine resorts to the Greater Alpine Region

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$709	$482	$1,191
Employment (Jobs)	4,278	1,774	6,052
GRP (Value-added) ($m)	$311	$232	$543

Table 28 Economic contribution of Victoria's alpine resorts to Victoria

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$709	$1,005	$1,714
Employment (Jobs)	4,652	3,240	7,892
GSP (Value-added) ($m)	$316	$474	$790

Falls Creek

Table 29 Economic contribution of Falls Creek to the Alpine Shire

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$252	$122	$373
Employment (Jobs)	1,366	476	1,842
GRP (Value-added) ($m)	$108	$63	$171

Table 30 Economic contribution of Falls Creek to the Greater Alpine Region

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$252	$171	$423
Employment (Jobs)	1,519	629	2,148
GRP (Value-added) ($m)	$111	$82	$193

Table 31 Economic contribution of Falls Creek to Victoria

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$252	$357	$609
Employment (Jobs)	1,651	1,151	2,802
GSP (Value-added) ($m)	$112	$168	$280

Lake Mountain

Table 32 Economic contribution of Lake Mountain to the Murrindindi Shire

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$27	$12	$38
Employment (Jobs)	159	48	207
GRP (Value-added) ($m)	$12	$6	$17

Table 33 Economic contribution of Lake Mountain to the Greater Alpine Region

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$27	$18	$45
Employment (Jobs)	160	66	226
GRP (Value-added) ($m)	$12	$9	$20

Table 34 Economic contribution of Lake Mountain to Victoria

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$27	$38	$64
Employment (Jobs)	174	121	295
GSP (Value-added) ($m)	$12	$18	$30

Mt Baw Baw

Table 35 Economic contribution of Mt Baw Baw to the Baw Baw Shire

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$24	$16	$40
Employment (Jobs)	152	61	213
GRP (Value-added) ($m)	$11	$8	$19

Table 36 Economic contribution of Mt Baw Baw to the Greater Alpine Region

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$24	$16	$40
Employment (Jobs)	143	60	203
GRP (Value-added) ($m)	$10	$8	$18

Table 37 Economic contribution Mt Baw Baw to Victoria

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$24	$34	$57
Employment (Jobs)	156	109	265
GSP (Value-added) ($m)	$11	$16	$26

Mt Buller/Stirling

Table 38 Economic contribution Mt Buller/Stirling to the Mansfield Shire

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$234	$105	$339
Employment (Jobs)	1,346	441	1,787
GRP (Value-added) ($m)	$102	$55	$157

Table 39 Economic contribution of Mt Buller/Stirling to the Greater Alpine Region

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$234	$159	$393
Employment (Jobs)	1,413	586	1,999
GRP (Value-added) ($m)	$103	$77	$179

Table 40 Economic contribution of Mt Buller/Stirling to Victoria

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$234	$332	$566
Employment (Jobs)	1,536	1,070	2,606
GSP (Value-added) ($m)	$104	$157	$261

Mt Hotham

Table 41 Economic contribution of Mt Hotham to the Alpine Shire

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$173	$86	$259
Employment (Jobs)	899	338	1,237
GRP (Value-added) ($m)	$74	$45	$119

Table 42 Economic contribution of Mt Hotham to the Greater Alpine Region

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$173	$118	$290
Employment (Jobs)	1,043	432	1,475
GRP (Value-added) ($m)	$76	$57	$132

Table 43 Economic contribution of Mt Hotham to Victoria

	Direct impact	Indirect impact	Total impact
Gross expenditure ($m)	$173	$245	$418
Employment (Jobs)	1,134	790	1,924
GSP (Value-added) ($m)	$77	$116	$193

Appendix B Travel cost assumptions

This study uses estimated travel costs (i.e. foregone wages or cost of leisure time) as a conservative proxy for consumer surplus, given willingness-to-pay market research is not included in the scope of this study.

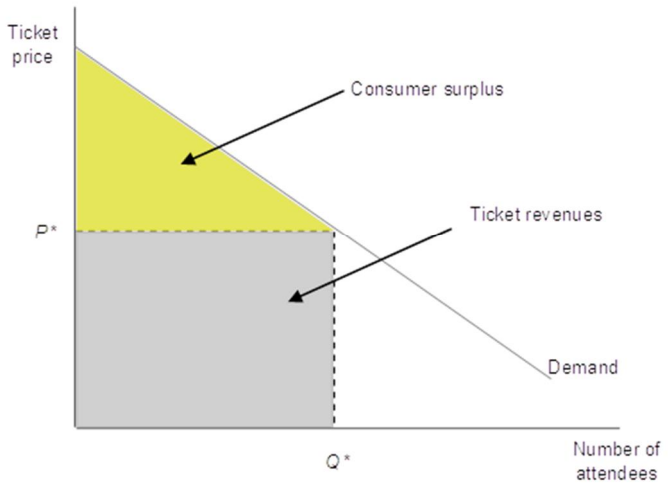
The consumer surplus of visitors is the difference between the maximum entry price a visitor is willing to pay and the actual price paid for their trip to the snow. If a visitor would be willing to pay more than the ticket price, then they are getting more benefit from their visit than is captured in the ticket price (see below). This represents a broader social and recreational value in addition to the price paid for a trip to the snow (as captured in the economic contribution estimate) and travel costs incurred making a visit to the snow.

Box 1 - What is consumer surplus?

Consumer surplus is a net benefit that can be defined as the difference between what a consumer is willing to pay and the actual price paid.

A graphical representation of consumer surplus is presented in Figure 25. It shows a downward sloping demand curve which indicates different levels of demand at different price points (the cost of a trip to the snow). The amount that people are willing to pay for a trip to the snow is the area underneath the demand curve. At the price point P*, the amount of people that would take a trip at that prove point would be Q*, and revenues to the alpine resorts would be the shaded box P* × Q*. The consumer surplus benefit to the consumer is therefore the amount they were willing to pay (the area underneath the demand curve up to Q*) less the amount they actually paid (P* × Q*) – this is represented by the triangle above the price point.

Figure 25 Consumer surplus



This following sections present an overview of the data inputs and assumptions used to in the travel cost method.

Summary of formulas

The formulas used to calculate the total travel cost are presented below. EY assumes that all alpine resort visitors commute by car or public transport. No other modes of transport have been modelled.

Table 44 Travel cost formulas

Travel cost item	Formula	Price ($)
Wage/time cost	Return trip travel time (hrs) x Population (Car, adult only)	Minimum wage ($/hr)
Transport cost	((Total visitors ÷ pax per car) x average kms per car)	$ per km

The data inputs outlined above are presented in the proceeding sections.

Victorian visitation

The following table presents the number of Victorian visitors to each of Victoria's alpine resorts. Note, that only Victorian visitors are captured in the travel cost estimate because the scope of this study is limited to the economic contribution to Victoria.

Table 45: Victorian visitors by resort

Resort	Number of Victorian visitors
Falls Creek	121,183
Lake Mountain	90,289
Mt Baw Baw	46,808
Mt Buller/Stirling	286,314
Mt Hotham	92,641

Source: ARCC

Distance from resort

The assumed distance (km) to each was required to estimate the return trip travel time (for all modes of transport). EY has assumed that the distance of each resort from the CBD as an appropriate proxy for the average distance travelled for all Victorian visitors. The assumed distance (km) and total travel time (hours) per round trip is presented in the table below.

Table 46: Distance from Victoria's alpine resorts

Resort	Distance travelled (km)	Travel time (hours)
Falls Creek	700	8.8
Lake Mountain	240	3.0
Mt Baw Baw	240	3.0
Mt Buller/Stirling	416	5.2
Mt Hotham	714	8.9

Source: ARCC

Mode of transport

The assumed mode of transport profile used by visitors to commute to the snow was required to estimate travel time and transport costs. For the purposes of this analysis, it has been assumed that all trips were made by car and that, on average, there are five passengers per car.

Wage/time costs

EY used the current Australian minimum wage for adults ($16.37/hr) and assumed return trip travel time (hours) to estimate the foregone wages of the alpine resorts' adult visitors.

Results of travel cost analysis

Applying the assumptions outlined above EY estimates that the value attributable to the alpine resorts was **$108.7 million** in the 2016 Winter season. A breakdown of the results for each resort is provided in the table below.

Table 47: Travel cost incurred

	Time costs	Transport costs	Total
Falls Creek	$17.9	$12.6	$30.4
Lake Mountain	$4.6	$3.2	$7.8
Mt Baw Baw	$2.4	$1.7	$4.0
Mt Buller/Stirling	$25.1	$17.6	$42.7
Mt Hotham	$13.9	$9.8	$23.7
All resorts	**$63.9**	**$44.8**	**$108.7**

Source: EY analysis

Appendix C Health benefits

The methodology used to estimate the health benefits generated by the alpine resorts is an avoided cost approach for visitors undertaking physical activity at the resort, based on estimates found in recent literature[9].

It is important to note however, that calculating the direct attribution of alpine resorts to health outcomes including economic benefits is difficult and would require significant additional research outside the scope of this study. Therefore, the health benefits provided in this report are indicative only.

The estimate value of health benefits is based on the following assumptions.

Table 48 Health benefits calculation assumptions

Assumptions	Value
Share of physically inactive visitors (i.e. doing less than the minimum recommended exercise)[10]	56%
Contribution of parks to recommended physical activity[11]	11%
Number of visitors to Victoria's alpine resorts with primary purpose of fitness/physical activity	36,928
Avoided health care and productivity costs per person due to physical inactivity[12]	$1,660
Total health benefits (from the alpine region)	$61,300,945

Source: EY analysis

[9] Warburton D. E. R., Nicol C. W., Bredin S. S. D. 2006 Health benefits of physical activity: the evidence. Canadian Medical Association Journal 174, pp. 801–809. DOI: 10.1503/cmaj.051351

[10] ABS 2013, Australian Health Survey: Physical Activity 2011-12

[11] DELWP, 2015, Valuing Victoria's Parks: Accounting for ecosystems and valuing their benefits

[12] Medibank Private, 2008, The Cost of Physical Inactivity.

Appendix D Existence value assumptions

Placing a value on existence value associated with the alpine resorts would ideally involve contingent valuation and surveys of the Victorian population to understand how much Victorians would be willing to pay to maintain the alpine resorts' operations in Victoria, even if they do not attend a resort. This level of primary research is outside the scope of this engagement.

Examples of values of this type of impact have been considered in other studies. For example, studies have estimated the average willingness to pay for the existence of various parks (see below).

Table 49 Average existence value of parks ($2016)

Author	Study	Measured	Average existence value per non-use adult ($2016 AUD)
Majid, Sinden & Randall (1983)	Benefit Evaluation of Increments to Existing Systems of Public Facilities	Public park facilities in Armadale, NSW	Park 1: $21.01 Park 2: $22.88
Walsh, Loomis & Gillman (1984)	Valuing Option, Existence and Bequest Demands for Wilderness	Incremental size of wilderness protection areas in Colorado	0.5 m ha: $17.22 4 m ha: $38.98
Bennett, J.W. (1984)	Using Direct Questioning to Value the Existence Benefits of Preserved Natural Areas	Nadgee Nature Reserve on the south coast of NSW, Australia	$80.26
Walsh, R.G., Bjonback, R.D., Aiken, R.A. & Rosenthal, D.H. (1990)	Estimating the Public Benefits of Protecting Forest Quality	National Forests located in Colorado	$22.59

Source: Various, converted to AUD and inflated to June 2016 dollars

For the purposes of this study, we have assumed an existence value for Victoria's alpine resorts of $33.83 per non-use adult. This represents the average existence value placed on parks based on the studies listed in the table above, which provide a reasonable proxy given the similar characteristics exhibited by the alpine resorts (e.g. tourist attraction, environmental benefits) and the parks examined in the study.

EY recognises that a limitation of this analysis is the use of secondary information from studies conducted in other jurisdictions as well as on facilities that are of a different nature to alpine resorts. For instance, people in other jurisdictions may value assets differently to the Victorian population. However, it was beyond the scope of this analysis to carry out surveys of Victorian residents.

Non-use adults

This value per adult was applied to the assumed number of non-use adults (i.e. adults that did not visit the alpine resorts) in the vicinity of the region (i.e. the Greater Alpine Region). For simplicity, it has been assumed that the number of non-use adults in the vicinity of the alpine resorts is equal to the total population of the Greater Alpine Region (**80,489 adults)**. While this may lead to double counting for a number of residents in the Greater Alpine Region, it is believed that overall this assumption is a conservative estimate, given that the area of influence is likely to extend well beyond the boundary of the Greater Alpine Region, with many other Victorians valuing the existence of the alpine resorts.

Appendix E Surveys

Alpine Region Economic Significance Study – Visitor Survey

Study No.	26068
Client	Ernst & Young
Version	Version 5 – 11 August 2016
Research Consultant	Cori Hodge and Thomas Barbera

SECTION ONE: PLACE OF RESIDENCE AND NUMBER OF VISITORS

Q1.	Are you ?	Male 1 Female 2 Other 3
Q2.	Please type in your postcode.	[ ] I'm from overseas 9
Q3.	Who accompanied you to [RESORT] on this trip? **Please select all that apply**	Alone 1 Couple 2 Group / Friends 3 Family 4
Q4.	How many people accompanied you on this trip? **Please enter a number and do not include yourself.**	[ ]

SECTION TWO: INTERNATIONAL VISITORS

Q6.	How many nights are you staying in Australia? **Please type in numbers.**	[ ] nights
Q7.	Would you have visited Australia at this time of year if you were not visiting the Alpine resorts?	Yes 1 No 2

Q8.	Is your **main reason** for your visit to Australia to visit the **Alpine resorts**?	Yes 1 No 2
Q9.	Did you extend your trip to Australia to visit the Alpine resorts?	Yes 1 No 2
Q10.	By how many nights did you extend your trip?	nights

SECTION THREE: VISITOR INFO

Q11.	Is this your first trip to an Alpine resort?	YES 1 NO 2
Q12.	In which years have you also visited an Alpine resort in **Victoria**? **Please select all that apply**	2015 1 2014 2 2013 3 2012 4 2011 5 2010 or earlier 6 This is my first visit to an Alpine resort in Victoria 7
Q13.	As an interstate visitor, would you have visited Victoria at this time of year if you were not visiting the Alpine resorts?	Yes 1 No 2 Don't know 3
Q14.	How many nights are you staying in Victoria? **Please type in numbers.**	nights
Q15.	How many nights are you staying in this resort? **Please type in numbers.**	nights
Q16.	As an interstate visitor, did you extend your trip to Victoria to visit the Alpine resorts? If so, please indicate by how many nights you extended it.	nights I did not extend my trip 1

Q17.	Why have you visited the Victorian Alpine region? **Please select all that apply**	Visit friends / family 01 Holidays / Leisure time / Day trip 02 Business / work purposes 03 To visit the Alpine resorts 04 Accompanying friend or relative 05 To attend a conference 06 To attend an event / festival 07 To participate in winter sports 08 Other (**Please type in**) 09 None of the above / No reason 10

Q18.	How do you rate the quality of your experience at this resort on this trip?	Excellent 1 Good 2 Average 3 Poor 4 Awful 5

Q40.	Have you visited this alpine resort outside the snow season in the past twelve months?	Yes 1 No 2

SECTION FOUR: ACCOMMODATION AND TRAVEL

We'd now like to ask a few quick questions on your accommodation

Q19.	If you are staying overnight, what type of **accommodation** are you staying in? **If you are staying in multiple places, please select all that apply.**	Ski lodge 01 Hotel 02 Motel 03 Backpackers 04 Caravan 05 Camping 06 Rented serviced apartments 07 Private serviced apartments 08 Private residence 09 Other – please specify (**please type in**) 10 I'm not staying overnight in this resort 11

Q20.	Did you stay **overnight** in any **towns** in the area?	Yes 1 No 2

Q21.	What is the name of the town you stayed overnight in? **Please type in your answer.**

Q22. How many nights did you stay in the town? **Please type in numbers.**	No. of nights
Q24. What is the cost of your accommodation per person per night? **Please type in numbers.**	$/person per night Don't know / Not sure 99
Q25. What currency is that accommodation cost in?	
Q27. How much did your travel within Australia to this resort cost you **per person**? **Please type in an amount in Australian Dollars.**	$ Don't know / Not sure 99

SECTION FIVE: EXPENDITURE

Q28. To your best estimate, how much did you or will you spend per person per day on ?

Please type in numbers and in Australian dollars.

1. Meals, food and drinks:

$

2. Shopping:

$

3. Equipment hire / purchase:

$

4. Travel to and from resort today::

$

5. Entry fee

$

6. Events

$

7. Lift passes:

$

8. Other

$

Q30.	If you had not visited Alpine resorts this season, how would you have spent the money? **Please select all that apply.**	Holidayed elsewhere in Australia 1 Holidaying overseas 2 Saved the money 3 General household expenditure 4 Holidayed elsewhere in Victoria 5 Other (specify) (**please type in**) 6

SECTION SEVEN: CLASSIFICATION AND MARKETING

Q31.	What is your age? **Please type in your age.**	years old Prefer not to say 1
Q33.	What is your **household income** (income of everyone in your home) after tax per year? **Please select one response only.**	Less than $20,000 1 $20,000 - $35,000 2 $35,000 - $50,000 3 $50,000 - $60,000 4 $60,000 - $100,000 5 $100,000 - $125,000 6 $125,000 - $175,000 7 More than $175,000 8 Prefer not to say 9
Q34.	How many short breaks of **1-4 nights** away from home have you taken in the **last 12 months**? **Please select one response only.**	4 or more short breaks 1 3 short breaks 2 2 short breaks 3 1 short break 4 None 5
Q35.	Have you seen any advertising for the Victorian Alpine region in the last six months? If so, please indicate where you saw it. **Please select all that apply.**	Television 01 Radio 02 Online video (e.g. YouTube, Vimeo) 03 Social media (e.g. Facebook, Instagram) 04 Posters and billboards 05 Online ads 06 A tourism website 07 Newspapers/magazines 08 Other **(Please type in your answer)** 09

	Can't remember / I haven't seen any advertisements 99

Q36. Was that advertisement(s) for ? **Please select all that apply.**	Tourism Victoria (Wander Victoria) 01 Snow Victoria (Nothing Feels Like Snow) 02 A specific resort, e.g. Mt. Buller, Falls Creek 03 Other **(Please type in your answer)** 04 Can't remember / I haven't seen any advertisements 99

Alpine Region Economic Significance Study – Winter Employee Survey

Study No.	26068 - Alpine Region Economic Significance Study
Client	Ernst & Young
Version	Version 4 – 5 September 2016
Research Consultant	Thomas Barbera, Belinda Rogerson, Matt Bond

SECTION ONE: RESIDENCE

Q1a.	Where is your permanent place of residence? **Please select one only**	NSW 1 VIC 2 QLD 3 SA 4 WA 5 TAS 6 NT 7 ACT 8 Overseas 9
Q1b.	Which postcode is your permanent place of residence in? **Please type in your postcode.**	
Q1c.	Which country is your permanent place of residence in? **Please type in a country.**	
Q2.	For this season, where do you live when you are working in the Alpine region?	At the resort 1 Less than 20km from the resort 2 21 – 40km from the resort 3 40 – 60km from the resort 4 More than 60km from the resort 5
Q3.	For this season, with whom did you come to work in the Alpine region? **Please select all that apply**	Alone 1 Couple 2 Friends/relatives 3 Group 4 Other 5

Q4a.	As you are from overseas, did you travel to Australia to work in the Alpine region?	Yes 1 No 2
Q4b.	Did you extend your trip to Australia to work in the Alpine region?	Yes 1 No 2
Q4c.	How many extra weeks did you stay in Australia to work in the Alpine region? **Please type in the number of weeks**	
Q4d.	What type of visa are you on, if any?	I am an Australian Citizen or Permanent Resident 1 Working holiday visa 2 Student visa 3 (Temporary) work visa (including sponsored) 4 Family visa (including partner, child) 5 Other visa (please specify) 6
Q4e.	Did your employer organise the visa?	Yes 1 No 2

SECTION TWO: YOUR EMPLOYMENT

Q5.	Where are you employed in the Alpine region?	Falls Creek 01 A nearby town to service Falls Creek 02 Lake Mountain 03 A nearby town to service Lake Mountain 04 Mount Baw Baw 05 A nearby town to service Mount Baw Baw 06 Mount Buller 07 A nearby town to service Mount Buller 08 Mount Hotham 09 A nearby town to service Mount Hotham 10 Mount Stirling 11 A nearby town to service Mount Stirling 12 Other (please specify) 13
Q6a.	Which of the following best describes your employment?	Full time (permanent) 1

		Part time (permanent) 2 Casual 3
Q6b.	On average, how many days do you work in a typical week?	
Q6c.	When you have a day off, how often do you spend it on the mountain?	All the time (around 100% of the time) 1 Usually (around 75% of the time) 2 Sometimes (around 50% of the time) 3 Rarely (around 25% of the time) 4 Never 5
Q7.	Which of the following **best** describes your main occupation in the Alpine region?	Manager 01 Hospitality and Accommodation 02 Technician/Trades Worker 03 Community and Personal Service Worker 04 Clerical and Administrative Worker 05 Snow experience (including instructor) 06 Machinery Operator/Driver 07 Labourer / Construction 08 Lift operations 09 Retail / Rental 10 Government and Public Service 11 Customer Service 12 Sales / Marketing 13 Other (specify) 14
Q8.	What skills or qualifications related to snow sports do you have?	APSI Level 1 (including Skiing/Boarding) 01 APSI Level 2 (including Skiing/Boarding) 02 APSI Level 3 (including Skiing/Boarding) 03 APSI Level 4 (including Skiing/Boarding) 04 Snow Sports Coaching qualification 05 Other (please specify) 06 None 07
Q9.	How many hours do you work per week on average? **Please type in numbers.**	hours

Q10.	Including the current season, how many seasons have you worked in the Alpine region in Australia? **Please type a number.**	

Q11.	What is your average weekly income after tax at this time? **Please type in numbers.**	$

Q12.	What is your period of employment in the Alpine region (in months)? **Please type a number.**	

Q13.	Do you intend to work in any other areas in or associated with the Victorian Alpine region in the current season? **Please select all that apply.**	Falls Creek 01 A nearby town to service Falls Creek 02 Lake Mountain 03 A nearby town to service Lake Mountain 04 Mount Baw Baw 05 A nearby town to service Mount Baw Baw 06 Mount Buller 07 A nearby town to service Mount Buller 08 Mount Hotham 09 A nearby town to service Mount Hotham 10 Mount Stirling 11 A nearby town to service Mount Stirling 12 No 13

Q14.	What would you have done if you were not working in the Alpine region?	Study 1 Travelled 2 Worked elsewhere in the hospitality/tourism industry 3 Not worked 4 Other 5

SECTION THREE: YOUR EXPENDITURE

Q15a.	Do you own the accommodation you are staying in during the snow season?	Yes 01 No 02

Q15b.	What is your monthly mortgage payment? If you don't pay a mortgage, please type in '0'. **Please type in numbers.**	$ per month

Q15c.	What is your average weekly rent? If you don't pay any rent, please type in '0'. **Please type in numbers.**	$ per week

Q16.	What proportion of your income do you save?	% None 0

Q17. On average, how much per do you spend per week on ? **Please type an amount.**

		In the Alpine Resort	In a nearby town
1.	Meals, food and drinks	$	$
2.	Shopping	$	$
3.	Entertainment	$[NUMBER]	$[NUMBER]
4.	Equipment hire and lift costs	$[NUMBER]	$[NUMBER]
5.	Work related travel (including entry fees)	$[NUMBER]	$[NUMBER]
6.	Other costs	$[NUMBER]	$[NUMBER]

SECTION FOUR: DEMOGRAPHICS

Q20.	Do you identify as?	Male 1 Female 2 Other 3

Q21.	What is your age? **Please select one response only.**	15 to 17 years 1 18 to 24 years 2 25 to 29 years 3 30 to 39 years 4

	40 to 49 years 5 50 to 59 years 6 60 to 69 years 7 70+ years 8

Q22.	What is your highest level of qualification? **Please select one response only.**	Postgraduate 1 Bachelor 2 Graduate diploma/Graduate certificate 3 Advanced diploma/Diploma 4 Certificate 5 Other (specify) (**please type in**) 6

Q23.	If you would like to enter the prize draw for 1 of 5 $100 Coles Group and Myer gift cards, please answer the following question: In 25 words or less, what is the best thing about working in Victoria's alpine region, and why?	I don't want to enter 6

Q24.	So that we can contact you if you are the lucky winner, please provide your name, phone number, and a valid email address. Your personal details will not be used for any other reason and will not be associated with your survey responses.	

Alpine Region Economic Significance Study – Business Survey

Study No.	26068 - Alpine Region Economic Significance Study
Client	Ernst & Young
Version	Version 3 – 28 September 2016
Research Consultant	Thomas Barbera, Belinda Rogerson, Matt Bond

SECTION ONE: BUSINESS INFORMATION

Q1.	What type of business do you operate? **Please select all that apply**	Hotel 01 Motel 02 Serviced apartments 03 Caravan Park 04 Lodge 05 Other accommodation 06 Entertainment 07 Food and beverage 08 Snow sports equipment wholesale 09 Snow sports equipment hire 10 Snow sports equipment retail 11 Other retail 12 Passenger transport 13 Other business (**please type in**) 14

Q2a.	Does the business operate in both winter and summer?	Yes 1 No, winter only 2 No, summer only 3

Q2b. On average, how many people are/were employed by your business in each of the following periods, either full time (35 hours or more per week) or part time (less than 35 hours per week)?

Please type in average number of employees.

		Part-time employees (<35h/wk)	**Full time employees (>35h/wk)**
1.	Summer 2014/2015		
2.	Winter 2015		

3.	Summer 2015/2016		
4.	Winter 2016		

Q3.	Please estimate the percentage of your employees who normally reside in the local region all year round. **Please type in a number.**	Winter employees ____ % Summer employee ____ %

Q4.	What is the total combined value of **payroll and proprietor drawings** per year? Please remember that your results will only be analysed in aggregate form, and individual responses will not be made available to any parties outside of EY. **Please select one response only.**	Less than $50,000 1 $50,000 - $125,000 2 $125,000 - $250,000 3 $250,000 - $375,000 4 $375,000 - $500,000 5 $500,000 - $750,000 6 $750,000 - $1 million 7 $1 million plus 8

Q5.	Which of the following ranges describes your total **sales revenue** for the 2015-16 financial year? Please remember that your results will only be analysed in aggregate form, and individual responses will not be made available to any parties outside of EY. **Please select one response only.**	Less than $100,000 1 $100,000 - $225,000 2 $225,000 - $500,000 3 $500,000 - $750,000 4 $750,000 - $1 million 5 $1 million - $1.5 million 6 $1.5 million - $2 million 7 $2 million plus 8

Q6b.	Which areas in the Victorian alpine region does this business operate in? **Please select all that apply**	Falls Creek 01 A nearby town to service Falls Creek 02 Lake Mountain 03 A nearby town to service Lake Mountain 04 Mount Baw Baw 05 A nearby town to service Mount Baw Baw 06 Mount Buller 07

	A nearby town to service Mount Buller 08 Mount Hotham 09 A nearby town to service Mount Hotham 10 Mount Stirling 11 A nearby town to service Mount Stirling 12 Another area, serving visitors to or businesses in the Victorian Alpine Region 14 Other (please specify) 13

ASK Q6c IF Q6b = 14 OR 13

Q6c.	Roughly what percentage of your total sales occurs within the Victorian Alpine Region (i.e. within the resorts or nearby towns) and what proportion of your sales occurs outside this area? **Please type in a number.**	Within Victorian Alpine Region ____ % Outside Victorian Alpine Region ____ %

SECTION TWO: SEASON IMPACT

Q7a. Taking the 2015 snow season as a benchmark, how did the other snow seasons compare to 2015 in terms of your business sales?
Assuming 2015 = 100%, please indicate a percentage for each of the following seasons. For example, if your sales were 10% less in 2016 than in 2015, you would put "90%" next to that year.

Please type an amount. If you weren't operating in that season, please enter 0.

		%
1.	2011	
2.	2012	
3.	2013	
4.	2014	
5.	2015	100%
6.	2016 (estimate)	

Q7b. In your opinion, what are the biggest factors that lead to variation in your business' sales between years?

	Please type in your answer.

Q8.	In 2015, what percentage of the total sales of your business was in the winter season, and what percentage was in the summer season? **Please type in a number.**	Winter (2015)	%
		Summer (2015-16)	%

Q9.	What proportion of your business sales depend on visitors to alpine resorts? Please provide your best estimate. **Please type in a number.**	Winter (2015)	%
		Summer (2015-16)	%

Q10.	In general, what impact does a poor season have on the following season's sales?	Much higher sales the following season 1 A little higher sales the following season 2 No impact / no change 3 A little lower sales the following season 4 Much lower sales the following season 5 Don't know 6

Q11a.	In general, what impact does an increase in lift ticket prices have on your business?	Much higher sales 1 A little higher sales 2 No impact / no change 3 A little lower sales 4 Much lower sales 5 Don't know 6

Q11b.	In general, what impact does an increase in ~~park~~ resort entry fees have on your business?	Much higher sales 1 A little higher sales 2 No impact / no change 3 A little lower sales 4

	Much lower sales 5 Don't know 6
Q12. What percentage of your total sales value is made through an online site?	% My company doesn't have an online retail site 0
Q13. What percentage of your sales have been lost to competing online retail stores? Please provide your best estimate.	% My company has not lost any sales to competing online stores 0

Appendix F Engagement with key stakeholders

Stakeholder workshop

EY conducted two workshops with industry and management stakeholders to gain a fuller understand from those directly impacting and contributing to the Victorian economy.

Analysing the key takeaways from the workshop, a SWOT analysis was prepared which identifies the relevant strengths, weaknesses, opportunities and threats of the Alpine resorts. The results of the SWOT analysis are summarised below.

Strength	Description
Operations through the winter season must be maintained	Victoria's alpine resorts are a premier tourist destination which make a significant contribution to the Victorian economy. Their peak period occurs during the winter season when skiing is available. It was emphasised that the focus on generating additional economic activity during the winter season should not be sacrificed for a greater focus on the green season.
Support for the mature businesses to maintain quality of services offered (e.g. club lodges) Support the committed and long term stakeholders	During the winter season, established businesses such as club lodges, ski hire and ski lifts generate significant economic activity and contribute to the premier experience across the alpine resorts. It is essential that continued support be provided to these businesses to ensure a high quality experience is guaranteed.
Promote the unique offering (snow, alpine air, nature, open and green space)	The alpine resorts provide a unique offering that is difficult to find both domestically or overseas, for which visitors are likely to pay a premium to visit. The marketing and promotion of these unique aspects must be maintained and grown.
Linked with regional destinations	Due to their regional location, the alpine resorts provide an economic boost to nearby towns and regional centres. Linking the alpine resorts to the experience across regional Victoria benefits the State.
Continue to collaborate (not compete) with other ARMBs	Collaboration between ARMBs and other stakeholders help to improve the service offering, making the alpine resorts a more attractive destination for visitors.
Maintenance and continued operations of the established infrastructure	The continued maintenance of the established infrastructure make the winter season offering unique and high quality. Maintaining this high quality of service will continue to attract visitors and generate significant economic activity.
Snow making and guaranteeing winter experience	Snow making ensures skiing conditions throughout the winter season and help attract visitors even when natural snow is limited.
Engagement with schools (sports etc.)	School visitation has grown significantly over recent times and assists in attracting visitors during off peak times (mid-week). This is important as this visitation provides revenue during traditionally low visitation times.

Weakness	Description
Infrastructure continues to age and require significant maintenance	Ageing infrastructure requires significant maintenance and/or capital improvement in order to maintain current levels of service. The ageing of assets and infrastructure must be planned for to ensure there is no drop in the quality of service provided.
Perception of value for money is limiting visitation and involvement in activities	The primary activities (e.g. skiing, snowboarding) have the perception of being relatively costly in terms of ski hire, lift passes etc. Breaking this perception and generating a value for money offering is important to maintain high visitation during the winter season and to attract new visitors to the alpine region.
The complexity of the transaction is turning people away from visiting an Alpine report	Multiple transactions prior to skiing is a barrier to attracting visitation to the alpine region. Promoting simple transactions is important in the future to maintain visitation.
Ability to attract investment is limited across the Alpine resorts	Historically, the businesses and ARMB have struggled to attract investment (private and public) to the region. Additional investment would further enhance the offering and is an important business strategy moving forward.
Product offering and promotion during summer season	While the winter season generates significant attraction and must be maintained, limited resources have been dedicated to attracting visitors during the green season. Recent efforts to attract visitors have been successful and provides an opportunity to grow visitation across the year.
Resort overcrowding during peak times and ability to manage the infrastructure during the peak times (e.g. occupancy)	Peak periods on the mountains continued to be a challenge for the alpine region with significant recent growth in visitation during weekends and school holidays. Traffic flow, limited car parking, overcrowding and limited

	accommodation are all issues during peak times. Smoothing visitation across peak and off-peak times will help elevate some of these issues.

Opportunities	Description
Continue to raise awareness of the unique and value for money experience	Correct promotion and marking of the alpine region, the unique experience in Victoria and the ease of access is essential in growing visitor numbers. Provide activities and access for day visitors (they will pay for somethings)
Leverage 'Visit Victoria' to increase awareness and visitation Leverage visitation to local towns (e.g. Mansfield, Bright)	Strong relationships and collaboration with organisations such as Visit Victoria will assist in promoting the alpine regions as a destination of choice.
Improve market share (within Vic, across NSW and internationally) with innovative products (e.g. Epic Pass)	Development of innovative products that appeal to a wide range of visitors is essential in growing visitation. Consumers now have a large number of choices for recreation. Developing and promoting unique and innovative experiences will assist the alpine region maintain strong visitation.
Target new markets (Chinese, Indian)	International visitation from the Chinese and Indian markets is growing strongly, and there is potential to further tap into this significant tourism market by marketing the alpine resorts' unique experience offering.
Monetise 'Green Activity'	Continue to expand the green season offering (services and infrastructure) and begin commercialising activities. Expanding green season offering will provide a revenue stream during the summer months ensuring year round sustainable business operations.

Threats	Description
The changing climate	Managing the perception that climate change has and will continue to change the weather and negatively impact the experience. Victoria has a range of skiing options during the winter season and while climate change may emerge as a significant risk in the future, it is important that this perception does not deter people from visiting the alpine region. Managing uncertainly around climate change in the longer term is important with strategies to reduce this risk being develop (understanding the pace and scale of potential change and the long term risk profile).
Cultural difference between visitors (how to cater for everyone and ensure everyone is comfortable on the mountain) Explosion of day visitors jeopardising the overnight stay visitor experience	Providing facilities and infrastructure to cater for all types of visitors (cultural and day) is important to maintain the economic activity generated on the mountains. Repeat visitation is dictated by the services offered. Attracting visitors and having them return is essential for sustainable operations. Offering a breadth of experience will assist in maintaining strong visitor numbers.

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