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Airfares and Flights Routes in Regional Australia: Case of Central Australia

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2. Introduction

Air services are critical for the Northern Territory's economic and social wellbeing and growth, and underpin the Territory's ability to close the gap on Aboriginal disadvantage, develop our regions, and drive the development of the north.

The factors which impact on the supply, sustainability and cost of air services in the Territory include a small population (approximately 244,000 people dispersed over a vast geographic area of 1.3 million square kilometres), long travel distances, climatic extremes, remoteness and isolation. The Northern Territory's relatively low resident population is routinely cited by airlines as a key factor in the lack of competition on air routes to and within the Territory, which in turn contributes to higher prices for consumers (Northern Territory Government, 2018).

Alice Springs, located at the geographic centre of Australia, it is the centre of economic, social, cultural and recreational needs of Central Australia. The nearest major cities are Adelaide and Darwin, with each being approximately 1,500 km to the south and north respectively. Furthermore, other capital cities are more than 2,300 km away. This geographic remoteness and isolation absolutely enhances its dependence on air transport compared to any other regional centres.

According to 2016 Census, Alice Springs has a population of 24,753

(http://www.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/LGA70200)

with another 18,000 people living within a 500km radius of Alice Springs. Alice Springs is a service town with a very transient and disadvantaged Indigenous hinterland. Even though Alice Springs LGA itself scores high on SEIFA's measure of Relative Socio-Economic Disadvantage, this does not take into account the fact that Alice Springs is a service town with a very transient and disadvantaged Indigenous hinterland. For example, the Relative Socio-Economic Disadvantage scores for MacDonnell and Central Desert Regional Council LGAs are 592 and 558 respectively, placing both in the most disadvantaged decile

(<http://www.abs.gov.au/ausstats/subscriber.nsf/log?openagent&2033055001%20-%20lga%20indexes.xls&2033.0.55.001&Data%20Cubes&5604C75C214CD3D0CA25825D000F91AE&0&2016&27.03.2018&Lat>

[est](http://www.abs.gov.au/ausstats/subscriber.nsf/log?openagent&2033055001%20-%20lga%20indexes.xls&2033.0.55.001&Data%20Cubes&5604C75C214CD3D0CA25825D000F91AE&0&2016&27.03.2018&Lat)). The high cost of airfares compounds the disadvantage that the people of Alice Springs, and the wider Central Australia region, experience. It also amplifies the negative impact of high cost of living in the region which including high cost for transportation especially the high airfares. High airfares have been blamed as a negative factor which discourages the recruitment and retainment of workers for the businesses in the region (Alice Springs Town Council, 2018).

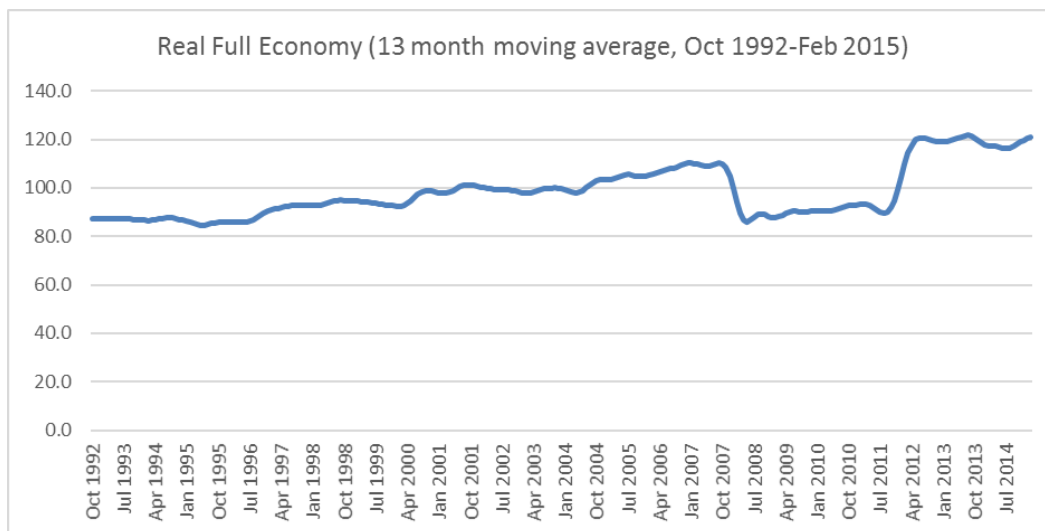
This report provides information about the airfares and flight routes in regional destinations focusing on central Australia to analyse the possible reasons of relatively high airfares and less connection with capital cities, and to discuss the possible solutions. The report is based on desktop research. The main information collected include submissions from different stakeholders to the Senate Inquiry in late 2017 to early 2018; the literature studying the airline price models and airport cost structure; the published materials about the impact of airlines on regional economic development including tourism

development; reports published by airports; and published airfares by major airlines operating regional air-services in Australia. With the limitation in research time and resource availability, this report mainly focuses on comparison of airfares in regional destinations, particularly in Alice Springs and central Australia, the roles and impacts of airlines on regional Australia, possible reasons for high airfares and discussion about the solutions. It is not a comprehensive study or a policy recommendation by any means but provides a basis for further research into the co-existence of airlines and regional airports, delivery of continuous quality services and contribution to social economic development in regional Australia.

3. Regional airfares have been and are higher absolutely and relatively

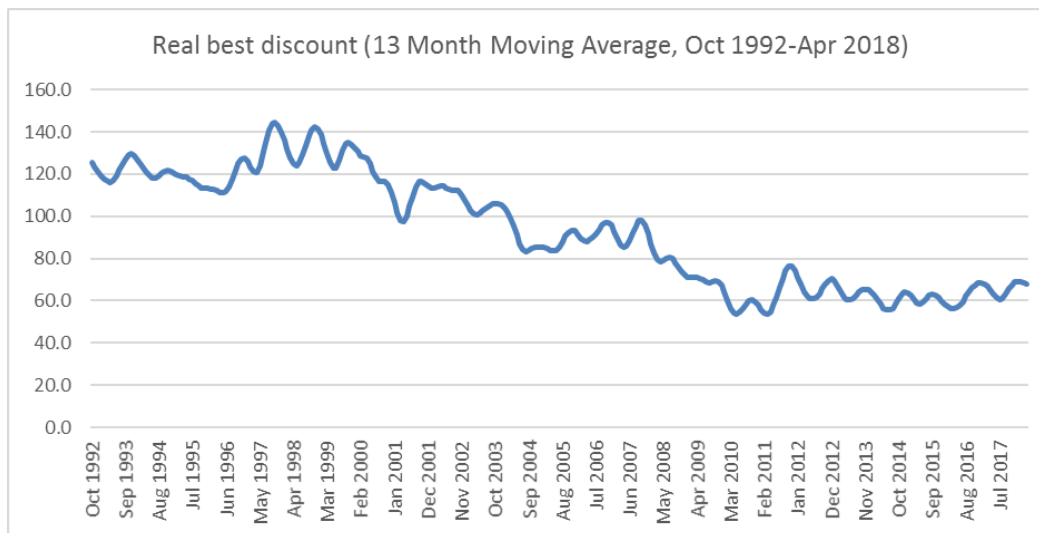
3.1. Airfares trends

Analysing the long-term trend of airfares across Australia, it is suggested that although the real full economy airfares have been slightly increasing (Figure 1), the real best discount airfares have been decreasing (Figure 2), according to (BITRE, 2017a).



Data source: https://bitre.gov.au/statistics/aviation/files/air_fares_1804.xls

Figure 1: Real Full Economy (13 month moving average, Oct 1992-Feb 2015)



Data source: https://bitre.gov.au/statistics/aviation/files/air_fares_1804.xls

Figure 2: Real best discount (13 Month Moving Average, Oct 1992-Apr 2018)

This trend has impacted the airfares pricing for regional routes. According to Qantas Airways (2018), compared to the airfares in 2003, in real terms, on average for all routes including regional routes, as at June 2017, Best Discount Economy fares were lower by 38.4%, Restricted Economy Class fares were lower by 19.1% and Business Class were lower by 4.9% (Qantas Airways, 2018, p6). Qantas argued that as “across all regional routes, the highest airfare buckets represent a minority of the retail fares sold-the vast majority of retail fares are purchased in Entry Level classes” (p6, refer to Table 1).

Table 1: Percentage of Retail Fares Sold in Full Economy v Entry Level

	Brisbane-Mount Isa	Brisbane-Rockhampton	Brisbane-Moranbah	Alice Springs-Darwin	Alice Springs-Sydney
Full Economy	0%	1%	2%	0%	2%
Entry Level	32%	27%	44%	51%	31%

Cited from (Qantas Airways, 2018, p6)

Although Qantas published these figures, for the public it is still difficult to know at which level (other than entry level and full economy level) the rest more than half (only little less for Alice Springs-Darwin route) of retail fares were sold. Moreover, this does not necessarily suggest that the overall regional airfares have been reduced. While when availability has been exhausted the high short-notice fares are understandable, it is the fact that there has always not been a very high load factor (Table 2) according to the BITRE’s activity statistics (BITRE, 2017b).

Table 2: Load factors for some flight routes (2017)

Flight routes	Brisbane-Mount Isa	Brisbane-Rockhampton	Alice Springs-Darwin	Alice Springs-Sydney
Average LF%	67.2	82.3	56.2	Not available

3.2. Northern Regional Australia suffers expensive airfares

It can be asserted that regional destinations in northern Australia and outback have higher airfares and less connection, compared to capital cities and regional areas in the south.

In the submission to Western Australia Parliament's Inquiry into the Regional Airfares in Western Australia in 2017, Broome Chamber of Commerce & Industry and Broome Airfare Action Group (2017) referred randomly to airfares from and to Broome at a weekend (Friday 11 August, return Monday 14 August 2017) booking 3 weeks before departure. They found that airfare flying from Sydney to Hamilton Island (with a population of 1,347) was \$135, returning from \$135. On the same day flying from Perth to Broome (with a population of 17,000) (the same distance as Sydney-Hamilton Island) started at \$352, returning \$495. The discrepancy being more than 300% (Broome Chamber of Commerce & Industry & Broome Airfare Action Group, 2017).

Chamber of Commerce NT and Tourism Central Australia (2017) investigated the airfares between Darwin and Alice Springs. The distance between Darwin and Alice Springs is 1310km, slightly less than Brisbane to Cairns at 1380km. The difference in pricing and servicing is significant, with Brisbane to Cairns offering 14 flights ranging in price from \$85-192 (booked 1 week in advance), while Darwin to Alice Springs offers 3 flights ranging from \$321-340 (Chamber of Commerce NT & Tourism Central Australia, 2017). Currently in Darwin we have price fluctuations that are inhibiting travel to our region. For example, a general one-way fare from Darwin to a major capital city in Australia can be purchased for approx. \$350, this is very similar to a one-way fare to Singapore (similar travel time). However, during the dry season (May to Sept), this rate can fluctuate by up to 300% (Tourism Top End, 2018).

Airfares to and from Mount Isa are between two to three times higher than east coast Australian routes (Mount Isa City Council, 2018). Mount Isa City Council (2018) compared the airfares from and to Mount Isa with similar airports and routes (with comparable distance, route passengers, airport passengers and load factors). It suggested that airfares per flying km (\$/km) for remote regional airports such as Mount Isa (Qld), Alice Springs (NT), Karratha (WA) and Carnarvon (WA) are much higher than other regional airports and routes (Table 3 and Table 4).

Table 3: Airfare comparison (long haul)*

Route	Airfare	\$/km	Route	Airfare	\$/km
Brisbane–Mount Isa	\$418	0.27	Mount Isa–Brisbane	\$450	0.29
Brisbane–Launceston	\$253	0.15	Launceston–Brisbane	\$272	0.16
Brisbane–Cairns	\$157	0.11	Cairns–Brisbane	\$151	0.11
Darwin–Alice Springs	\$335	0.26	Alice Springs–Darwin	\$331	0.25
Perth–Karratha	\$367	0.29	Karratha–Perth	\$361	0.29

Source: www.webjet.com.au/flights/australia/. Accessed on 11, 14, 17, 20, 23, 26 & 29 December 2017 and 1, 4, 7, 10 13, 16 & 19 January 2018.

*Cited from (Mount Isa City Council, 2018)

Table 4: Airfare comparison (medium haul)*

Route	Airfare	\$/km	Route	Airfare	\$/km
Townsville–Mount Isa	\$436	0.56	Mount Isa–Townsville	\$399	0.51
Cairns–Mount Isa	\$455	0.58	Mount Isa–Cairns	\$422	0.54
Perth–Learmonth	\$252	0.23	Learmonth–Perth	\$264	0.24
Perth–Paraburdoo	\$332	0.34	Paraburdoo–Perth	\$324	0.33
Sydney–Broken Hill	\$458	0.49	Broken Hill–Sydney	\$403	0.43
Perth–Carnarvon	\$447	0.55	Carnarvon–Perth	\$421	0.52

Source: www.webjet.com.au/flights/australia/ and <http://www.skippers.com.au/book-a-flight/> for the Perth Carnarvon route
 Accessed on 11, 14, 17, 20, 23, 26 & 29 December 2017 and 1, 4, 7, 10 13, 16 & 19 January 2018.

*Cited from (Mount Isa City Council, 2018)

These relatively higher airfares do not come with a premium service. For example, submissions to the Senate Inquiry into Regional Air Services from NT Government and Mount Isa City Council (Mount Isa City Council, 2018; Northern Territory Government, 2018) claim that they are increasingly being serviced by ageing aircraft with poorer on-time and cancellation performance.

We collected the airfare data from the airlines' official online booking systems on 27 April 2018. We collected the 4 days return airfares of direct flights between the city pair departing in two weeks (i.e. departing on 14 May and returning on 17 May 2018). We picked the available lowest fares at the entry level (e.g. Red e-Deal for Qantas, Starter for Jetstar, and Gateway for Virgin) (Table 5).

Table 5: Airfares from Capitals to Capitals and some regions (NT, QLD and WA) (return fares for 14-17 May 2018)*

Airport	Airlines	Sydney	Adelaide	Brisbane	Perth	Melbourne	Tennant Creek	Katherine	Alice Springs	Ayers Rock	Broome	Mount Isa	Kalgoorlie
Darwin	Qantas	737 (2 direct flights)	853	650 (2 direct flights)	937	746			673 (2 direct flights)	967 (no direct *via AS)			
	Jetstar	471	471	368		452							
	Virgin	920	700	570	819	643			642				
	Air North						678 (18/05 return)	774 (18/05 return)	714 (18/05 return)				
Perth	Qantas	681 (7 direct flights)	580 (4 direct flights)	690 (5 direct flights)		598 (8 direct flights)			834	908 (no direct *)	611		495 (3 direct flights)
	Jetstar	472	494			452 (2 direct flights)							
	Virgin	620 (4 direct flights)	530 (2 direct flights)	620 (4 direct flights)		558 (4 direct flights)					563 (3 direct flights)		
Brisbane	Qantas	288 (21 direct flights)	436 (4 direct flights)			360 (12 direct flights)			803 (no direct)	747 (no direct *)		756 (2 direct flights)	
	Jetstar	232 (6 direct flights)	336			292 (3 direct flights)							
	Virgin	258 (19 direct flights)	370 (3 direct flights)			318 (13 direct flights)						784	

* Fares were published on airlines' official booking websites on 27 April 2018.

We found that:

- 1) the airfares between the capital cities to their intra-state/territory destinations are much higher than the capital cities to other capital cities, although the flight distances are always much longer than intra state/territory routes. This suggests that regional routes usually have higher airfares.
- 2) for the same route, the fare of Jetstar is lowest, with Virgin fares in the middle and Qantas fares highest. This suggests that cheaper fares could be achieved if airlines adopt different management strategies or price setting models.
- 3) The more airlines and flights flying the same route, the cheaper the average fares are available. This suggests that the competition is an important driver for cheaper airfares.

3.3. Airfares for central Australia are even higher

Due to the tyranny of distance, flying is often the only option for people living in Alice Springs and central Australia to travel to other Australian cities. Whilst the high cost of airfares can be mitigated by booking early or traveling in the offseason, this generally only applies to holiday travellers. People who are forced to travel on short notice (for medical or legal reasons, to visit sick relatives, or to attend important family events, including funerals) are forced to pay exorbitant prices, often in excess of \$1,000 for a single return trip (Alice Springs Town Council, 2018).

The data collected from BITRE suggests that Central Australia's airfares are significantly higher compared to many other regional destinations to their own capital cities (such as outback Western Australia and Queensland) (Refer to Table 6). For example, a Qantas return airfare between Alice Springs and Darwin is \$673, while the fare for Broome and Perth is \$611 (10% lower than ASP-DRW), and Kalgoorlie to Perth is \$495 (26% lower than ASP-DRW). Travelling from Alice Springs to other regional airports in the NT (Tennant Creek and Katherine), although shorter distances, is even more expensive (\$678 and \$774 respectively).

Table 6: Airfares from regional airports (NT, QLD and WA) (return fares for 14-17 May 2018)*

Airport	Airlines	Sydney	Darwin	Adelaide	Brisbane	Perth	Melbourne	Tennant Creek	Katherine
Alice Springs	Qantas	768	673 (2 direct flights)	489	803 (no direct)	834	710		
	Jetstar								
	Virgin		642	458					
	Air North		714 (18 May return)					678 (18 May return)	774 (18 May return)
Ayers Rock	Jetstar	491	967 (no direct via AS)	753 (no direct)	747 (no direct)	908 (no direct)	556 (half direct)		
	Virgin	574							
Broome	Qantas					611			
	Jetstar	1038 (no direct, via Perth)							
	Virgin					563 (3 direct flights)			
	Air North		738						
Mount Isa	Qantas				756 (2 direct flights)				
	Virgin				784				
Kalgoorlie	Qantas					495 (3 direct flights)			

* Fares were published on airlines' official booking websites on 27 April 2018.

Another significant fact is that in the same region, the airfares for Alice Springs and Ayers Rock are quite different. The airfare information collected on 19 April 2018 from the Qantas website shows that the airfares, for example, between Sydney and Uluru are significantly lower than that between Sydney and Alice Springs (website airfares published for May 1-10, 2018) (Figure 3a, b and Figure 4a, b, c, d).

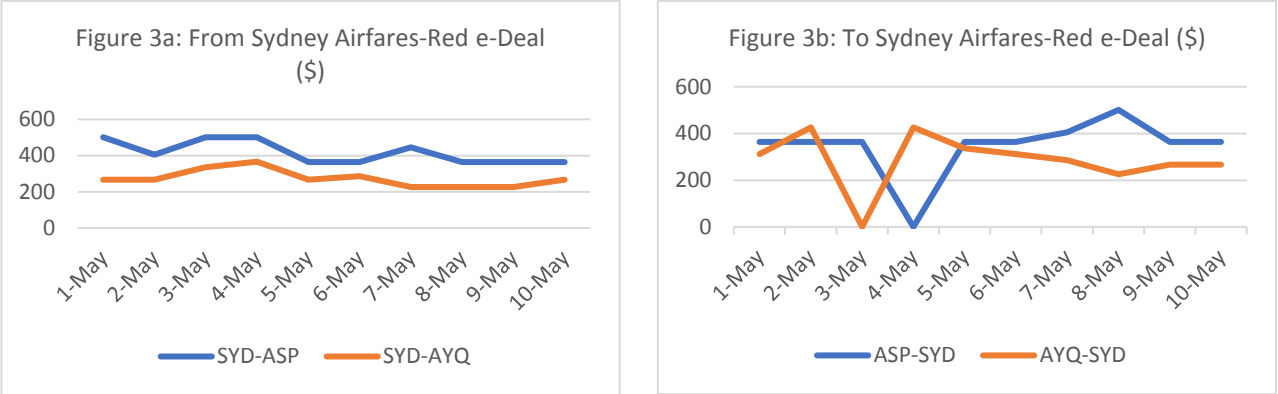


Figure 3: Comparison of one-way airfares between Sydney and Alice Springs/Ayers Rock

We compared the Red e-Deal (or Starter for Jetstar) fares. Figure 3a shows clearly that the one-way fare from Sydney to Alice Springs (10 days average is \$417) is consistently higher (52% higher on average) than to Ayers Rock (10 days average is \$273). Although the difference in fares to Sydney is narrow, the one-way airfare from Alice Springs to Sydney (\$384 on average) is still 21% higher than that from Ayers Rock (\$317 on average) (Figure 3b).

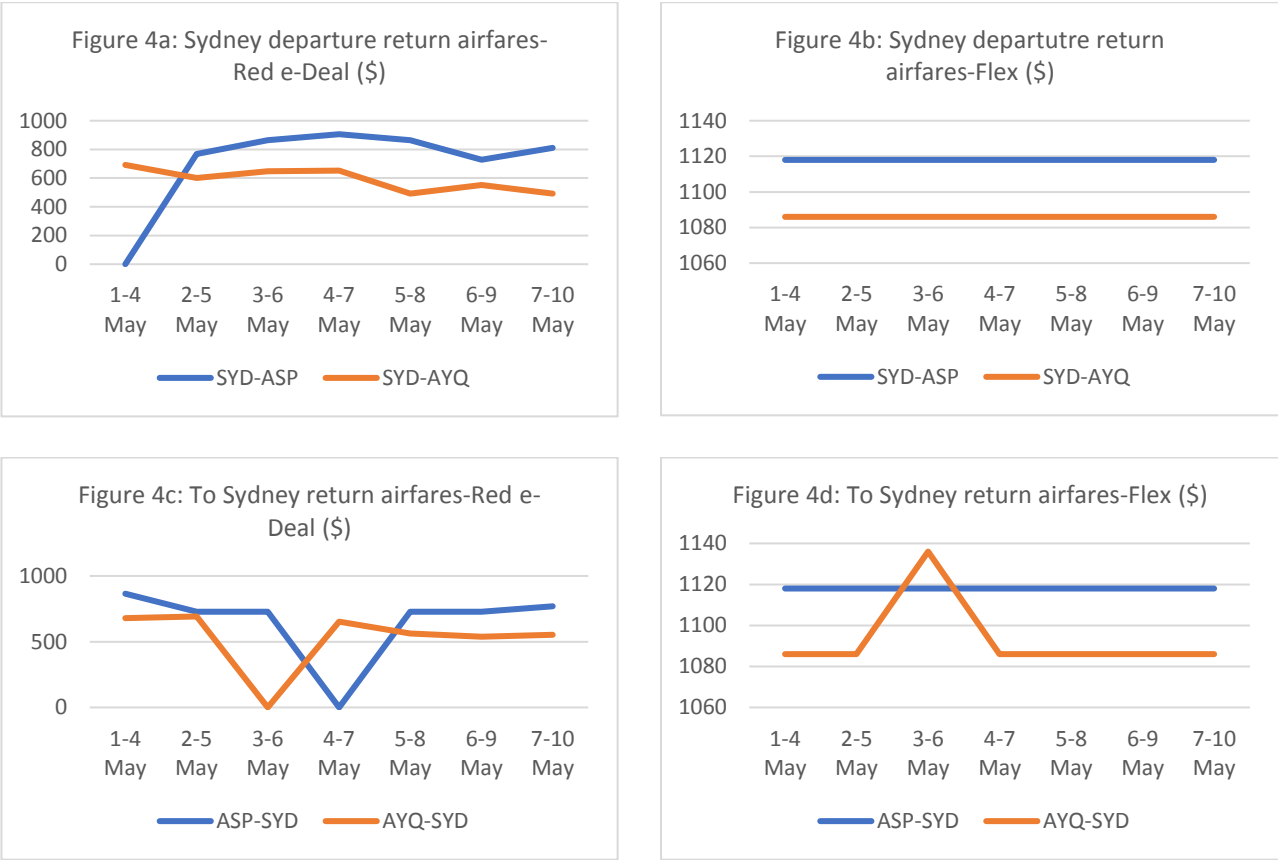


Figure 4: Comparison of return airfares between Sydney and Alice Springs/Ayers Rock

When we compared return fares between the two routes, it is found that Red e-Deal offers \$728-\$906 (\$824 on average) for flying from Sydney to Alice Springs and then returning, meanwhile \$492-\$692 (\$590 on average) for flying to Ayers Rock and returning to Sydney (Figure 4a). The cost for flying to and from Alice Springs is 40% higher than to and from Ayers Rock. When we looked at the fares from central Australia to Sydney, we found the same story. The return fares from Ayers Rock are \$538-\$692 (\$612 on average) while those from Alice Springs are \$728-\$865 (\$758 on average), that represents 23.7% higher costs for people travelling from Alice Springs (Figure 4c). Interestingly, when compared the Flex offers, although the fares for Alice Springs (both one-way and return) is higher than for Ayers Rock, there is no variation (only on 3 May, the fare from Sydney to Ayers Rock jumps by \$50) and little difference (only 2-3%) (Figure 4b, d).

The return airfare we used here is 4 days return, e.g. depart on 14 May, and return on 17 May 2018 which were collected at Qantas website on 27 April. When booking one way or return from either direction, there is no difference for the airfare for each leg. However, there might be slight differences in return fares if departing from different airports. For example, for the route Alice Springs-Sydney, the return fares departing Sydney or Alice Springs are \$768; but for Ayers Rock-Sydney route, the return fare departing Sydney is \$471, while the fare departing Ayers Rock is \$491. We used the average return fares for each route to compare the differences (Table 7).

Table 7: Comparison of average return Airfares between Sydney and Darwin, Alice Springs and Uluru

	Red e-Deal/Starter		Flex/Max		Flight distance (km)
	Airfare (\$)(\$/km)	% difference (F-D)/D	Airfare (\$)	% difference (F-D)/D	
Sydney-Ayers Rock (Jetstar) (D)	481 (0.2205)		1086 (0.4979)		2181
Sydney-Darwin (QF) (F)	716.5 (0.2271)	49.0% (3.0%)	1267 (0.4016)	16.7% (-19.4%)	3155
Sydney-Alice Springs (QF) (F)	768 (0.3798)	59.7% (72.2%)	1117 (0.5524)	2.9% (10.9%)	2022
Alice Springs-Darwin (QF) (F)	642 (0.4920)	33.5% (123.1%)	1052 (0.8061)	-3.1% (61.9%)	1305

Data sources: 14-17 May return ticket, checked on 27 April from Qantas website.

The published fares suggest that the return fare for Sydney-Ayers Rock is the lowest and that for Sydney-Alice Springs is the highest which is even more expensive than flying the route Sydney-Darwin (Figure 5).

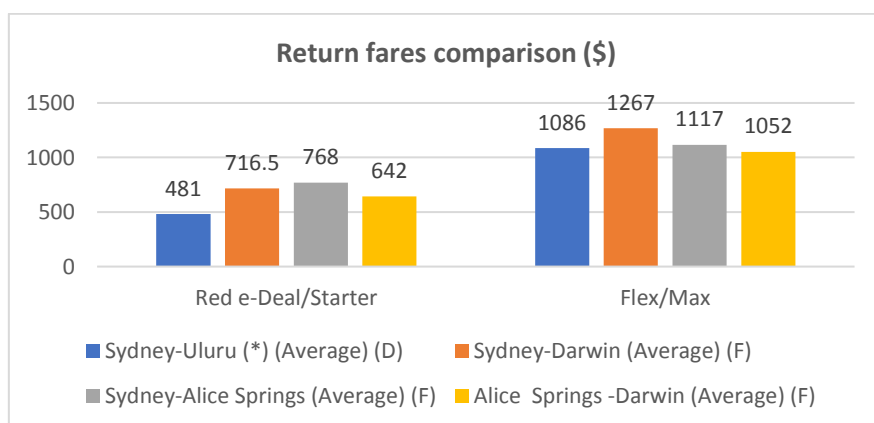


Figure 5: Return fares comparison in \$

If we compared the fare rate per km flying distance, the rate for Alice Springs is very high. The route between Alice Springs and Darwin reveals the highest return fares, and Alice Springs-Sydney follows as the second highest compared to Ayers Rock-Sydney and Darwin-Sydney (Figure 6).

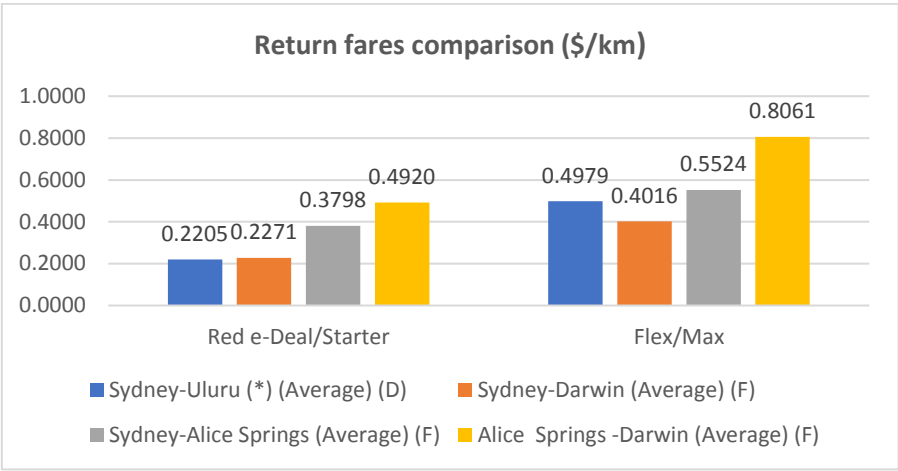


Figure 6: Return fares comparison in \$/km

We found that:

- 1) the airfares between Alice Springs and capital cities are much higher than other regional routes, such as Broome and Kalgoorlie (refer to Table 5);
- 2) the airfares from and to Alice Springs are much higher than the airfares from and to Ayers Rock (refer to Table 5 and Figure 5); and
- 3) Considering the flying distance, airfares for Alice Springs are extremely high, compared to Ayers Rock and Darwin (refer to Table 7 and Figure 6).

4. Social & economic impacts of high airfares

As demonstrated, central Australia’s airfares are high. They are even much higher considering social economic disadvantages in this region: lower average income per capita, lower (smaller scale of) business revenue, and higher staff turnover with associated increased recruitment and training expenses, and higher cost of living. The high fares negatively impact on people’s movement as well as on social and economic development in the region.

4.1.Stakeholders’ perceptions

People have suffered financially from the high airfares. Many residents are seeking solutions. In Mount Isa, a family of four will save over \$2000 by driving 903 kilometres to Townsville and then catching a flight to Brisbane, rather than catching a direct flight to Brisbane (Mount Isa City Council, 2018).

In Alice Springs, locals often drive for 5 hours to fly to capital cities from Ayers Rock, as it is much cheaper than in Alice Springs (Alice Springs Town Council, 2018; Chamber of Commerce NT & Tourism Central Australia, 2017).

The high cost of airfares is often a major reason for people to move away from Alice Springs. The ABS ERP that shows that the population of Alice Springs has declined every year since 2011 (Australian

Bureau of Statistics, 3218.0 Regional Population Growth, Australia, “Table 7. Estimate Resident Population, Local Government Areas, Northern Territory”) (Alice Springs Town Council, 2018).

The unfairly high airfares from Alice Springs has been a hot topic in local media, which increased recently while the Senate Inquiry into the regional air-services visited town. We collected and summarised some of these media responses in Table 8.

Table 8: Some media responses to high airfares

Date	Media	Title	Issues
Nov 28, 2017 P1 and P7)	<i>Centralian Advocate</i>	Is this fare? About Senate Inquiry to investigate regional airfares	1) Services warning in Yulara bargains; 2) High flight prices anger in Alice; 3) Airlines rely on volume first, to achieve profitability; 4) All of my peer group feel pressured by flight prices
Feb 20, 2018 P12	<i>Centralian Advocate</i>	What’s a fair fare for all?	Australia’s in need of a Ryanair-style shake-up
Mar 6, 2018, p3	<i>Centralian Advocate</i>	Flight cost questions for Qantas	Alan Joyce speaks at the launch of the new Dreamliner in Alice Springs on Friday.
April 6, 2018 p3	<i>Centralian Advocate</i>	Low cost flight of fancy	Senate inquiry interested in Alice and Uluru price disparity
April 6, 2018 p15	<i>Centralian Advocate</i>	It’s time for airlines to give travellers a fare go	1) Interviews with Alice Springs residents and visitors 2) Remote situations outlined
April 10, 2018 p9	<i>Centralian Advocate</i>	Blow to backpacker market	1) Blow to backpacker market 2) too expensive to fly to receive awards 3) Family paying price for costly education thanks to soaring airfares
April 24, 2018 p15	<i>Centralian Advocate</i>	Locals continue to fight for fair fares to the Alice	1) Will Low Cost Carriers come back? 2) Competition between Alice Springs and Ayers Rock

4.2. Impacts on local businesses

Not only do people in Alice Springs have to pay a higher price for flights, it also negatively impacts local businesses, resulting in low wage growth and a lack of employment opportunities. Local businesses need people to spend money, however, the reality is that there are fewer residents in Alice Springs than in 2011, and the combination of high cost of living and high cost of airfares forces people to hold on to their money in case of an emergency (Alice Springs Town Council, 2018). As a result, the issue of staff attraction and retention are important for Alice Springs, especially since Alice Springs is also a very transient town. Consequently, it is important to make the town an attractive place to live; this includes the ability to travel elsewhere in Australia for a fair price (Alice Springs Town Council, 2018).

The cost of doing business in the Northern Territory including central Australia is significantly higher than other parts of Australia, due in no small part to the high cost of travelling long distances. According to a survey conducted jointly by Tourism Central Australia and the Chamber of Commerce Northern Territory in early 2018 (Chamber of Commerce NT & Tourism Central Australia, 2017), 51.39% of total surveyed businesses (53.4% from Central Australia, 39.7% from Top End) had an annual domestic air travel budget over \$10,000, which is significant considering most of businesses in the region are small businesses with limited total budget. 45.32% of respondents confirmed that the average price they paid for a one-way intrastate fare was more than \$400, with a further 44.6% confirming the average cost was \$300-\$400. Only 10.07% of respondents paid less than \$300 (Figure 7).

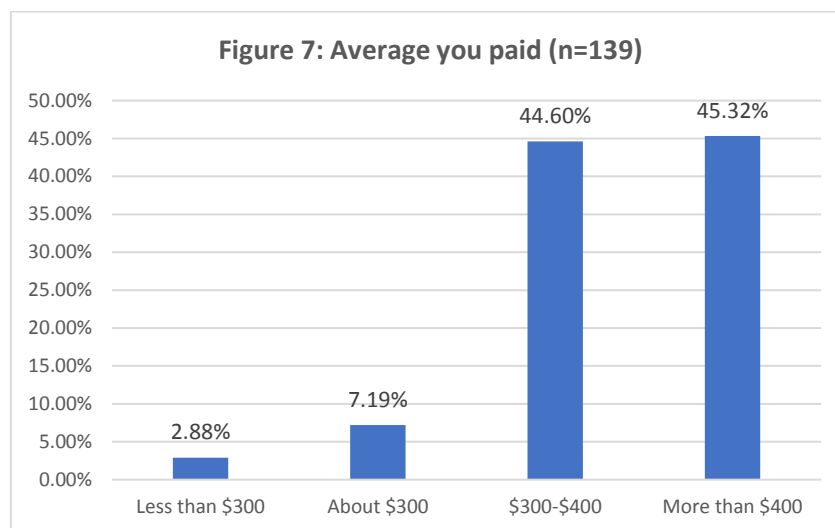


Figure 7: Average one-way fare paid by businesses travelling interstate

In the survey, there was not a single respondent happy with the cost and provision of air services. In their comments, they mentioned many issues associated with the air services, including compromised business promotion and reduced business productivity, flight cancellation affecting business operation, lost business and difficulties in staff recruitment. Some comments are aware of the importance of collaboration in finding a solution (Table 9).

Table 9: Comments about the airfares for central Australia*

Key issues commented	Quotes of comments
Compromised business promotion and cut business productivity	My business is restricted from travelling too much due to the high cost of flights to and from Alice Springs. I would like to travel more to attend trade shows and training, but have to heavily restrict due to high cost of flights. This has a direct impact on my business by not being able to promote at major trade shows and limits the staff training we can undertake.
	My staff and I would fly more often however we chose to drive now due to costs. It cuts our productivity as we are on the road so much more. We have flown less and less in the past 5 years and will continue to drive more than fly while the costs are so high. It is putting too much strain on small business with the prices we have to pay. I have also had some family not visit for over 6 years as they can't afford to fly in. Family stay in Alice Springs less time as they have to allow for drive time. I am looking at moving my business to be based in Adelaide so I can see family more often due to high air fares. It has also stopped me flying to weddings, birthdays, births, concerts etc as I just can't afford it.
	The increase in airfare cost has meant our business can travel less often and network less effectively with our customers interstate. This has a huge negative impact on our business
	We could do more business and provide a better service to regional and remote areas if airfares were reasonable. We can't service our customers with the current prices
	The greatest cost to the business and the economy is not the cost of flights for the company -rather it is the isolation and disconnection to the rest of Australia which has a major impact on keeping people in Alice Springs long term. This has a negative impact on tourism, private investment and the sustainability of various social elements. A long term, sustainable population is paramount to Alice Springs, however, expensive flights makes this difficult.
Cancellation affect business operation	Airlines are continually reducing flights to and from Alice Springs and Qantas has cancelled many of the afternoon flights into and out of Alice Springs to

	lack of numbers, usually just hours before flight is to depart. Difficult in organising meetings when flights are so unpredictable.
	We travel extensively and have seen several flights cancelled in recent months with no explanation. We are concerned this will continue to happen when flights are not full. The cancelled flights then were redirected to another city and took more than 24 hours to return. This makes it unworkable when setting client meetings. Air North is also an alternative, but is often cancelled or delayed. We are concerned that not only are flights expensive, but they will become unreliable as well which makes doing business challenging. It also impacts on liveability for staff who are trying to see family etc. on short trips.
	Flights get changed without warning and then you miss your connection flight as this carrier does not service this area and they do not seem to care that you are out of pocket or inconvenience. This is more than an isolated case. We would fly more if the price was lower but now we drive more.
Lost business	We have lost significant business in the tourism and corporate events industries due to excessively high flight costs in and out of Alice Springs. It has affected our business greatly in the first 6 months of operation. We have the capacity to seat 500 people at a corporate function and require response from the airlines and the government as to why flights are prohibitive and detrimental to Tourism in the region.
	We forego many business opportunities due to the prohibitive cost of flights from Alice Springs within the territory and nationally.
	Flights into and out of the Territory are having a detrimental effect on the Business Events Industry. We are constantly hearing feedback from organisers that flight and accommodation costs are some contributing factors as to why the Territory is not selected for a business event.
Staff recruitment and retention	The prices to Alice Springs are ridiculous. They are killing our business. Staff retention is almost impossible as people can't go on leave without paying around \$800-1200 per person return to Sydney or Melbourne. Over Christmas it was as much as \$2000 per person return to Melbourne.
	Travel budget depletes very quickly - restrictions on staff due to high travel cost – training opportunities getting missed
	The cost of airfares from and to Alice Springs has a negative effect when trying to recruit staff from interstate. During tourist season the cost of interstate fares rises considerably. Business travel is often at short notice, so we are unable to take advantage of any discount fares, as they are usually unavailable. When compared to the prices of flights available interstate, Central Australia continues to be price gouged.
	We hire temporary staff from all over Australia and getting temp staff is not affordable for our business. Further, potential employees are turned off from moving to Alice Springs to take up positions due to the isolation in particular expensive airfares. To travel from Uluru is half the cost which is 450km from Alice Springs. If they can have affordable flights I cannot see why we in Alice cannot have the same.
	Whilst one flight per day to Capital Cities and 2 flights per day within NT is acceptable and usable for both business and pleasure travellers, the cost is far too expensive to allow businesses to work effectively and for families to travel. It is very hard to encourage families to move to Central Australia where there is a lot of work on offer when they can't get home to see their families on holidays. Airlines complain that they need "bums on seat" in order to run an effective business, however you would have more bums on seats if the airfares were lower!

Need to find out why and work together to find a solution	The cost of flights is prohibitive for business in terms of expenditure and sales with visitors turning away from the region due to the cost. A negative media campaign against the airlines is not going to achieve the desired outcome and we have to find a way to work with them cooperatively. Find out from them what we need to do to achieve a better deal that will enable our economy to grow.
	40 years ago we had regular daily interstate flights connecting Alice Springs, Tennant Creek, Katherine and Darwin with Ansett and TAA, we also had a great number of overseas flights including Cathay Pacific, Garuda, Royal Brunei, Qantas, Malaysian Airlines, it seems we have and are continuing to slide backwards and this with an increase in population and tourism so from the outside, it is hard to fathom why.
	More importantly, when will the government bring some of these freight companies in to line whereby they charge a surcharge for air freight and airbags into the NT. Atom is charged \$15-\$20 for airbags by some companies, which is the national charge. Many others add a surcharge which will end up costing between \$40-\$60 for a bag, which is daylight robbery and has been going on for years. The subject has been broached with NT politicians as well as visiting Federal politicians, who are always going to look into it, but to no avail.
	What about there being an agreement for a minimum number of flights either a week or a month that must be met in order to keep being able to fly to a certain destination, and or what about a certain number of seats with a capped price (market equivalent of similar distance within Australia but has competition so prices are fairer) per week or month to from ie a 1 hour flight from Sydney to Melbourne is easily found for less than \$150, imagine a 1 hour flight from Darwin or Alice, to anywhere for similar cost.
	We are finding the cost of service personnel from interstate a large and inhibitive cost. There are skills not available in Alice Springs that we need to bring in and it is a huge cost. In addition it makes attendance at conferences and other events expensive. One of the reasons prices in Alice need to be higher than the rest of Australia. Taking this a step further, it restricts our choice when hiring staff...people from interstate think twice when they see the cost of returning home if working in Alice. It also restricts our access to investment as new owners see the cost of monitoring an investment in Alice which inevitably requires some face time.

*Data source: (Chamber of Commerce NT & Tourism Central Australia, 2017)

4.3. Impacts on tourism

Airfare pricing is a consideration for consumers when confirming their travel plans (Tourism Research Australia (TRA), 2012). Cost is a key deterrent amongst domestic travellers. Expensive airfares are an important reason for not intending to travel to the NT. Tourists often complain about high airfares: “The flight prices are bit too expensive”; “Price, it is so far away and so expensive to get there. Apparently, the airlines believe they need to overcharge their customers. I can fly to New Zealand for less than \$300” (Tourism Top End, 2018).

It is also similar for international tourists travelling around Australia. In general, international tourists are price sensitive when they travel overseas and plan their intra-country trips. Transport was the most expected service at both regional and major airports, and included provision of taxis, public transport links and shuttle buses (TRA, 2016). China is an important international tourist source market for Australia and also for the Northern Territory. According to Pham, Nghiem and Dwyer (2017), Chinese visitors are very price sensitive and have a high income elasticity. Chinese visitors are

very responsive to price signals. Hence, it is important to keep prices in Australia at a reasonable level, as the impacts of higher prices and price variation will be detrimental to the level of inbound demand from China, as well as their dispersal to regional regions. Another increasing market is India. A recent survey on Indian tourists in NT (TRA & Tourism NT, 2018) suggests that Indian travellers are very price sensitive and value conscious. Moderating the costs of travel to/from and within the NT would help to encourage visitation. Cost reductions in flights and accommodation would be particularly well received as this allows more discretionary spend on activities. Airline schemes and partnerships were felt to be necessary to provide more cost-effective airfares and limit the cost of travelling to the NT. Among the types of promotions that had the largest impact on potential considerers of the NT, “discounted airfares direct from India to the NT (57%)” and “discounted airfares from a major Australian city to the NT (52%)” are top listed (TRA & Tourism NT, 2018).

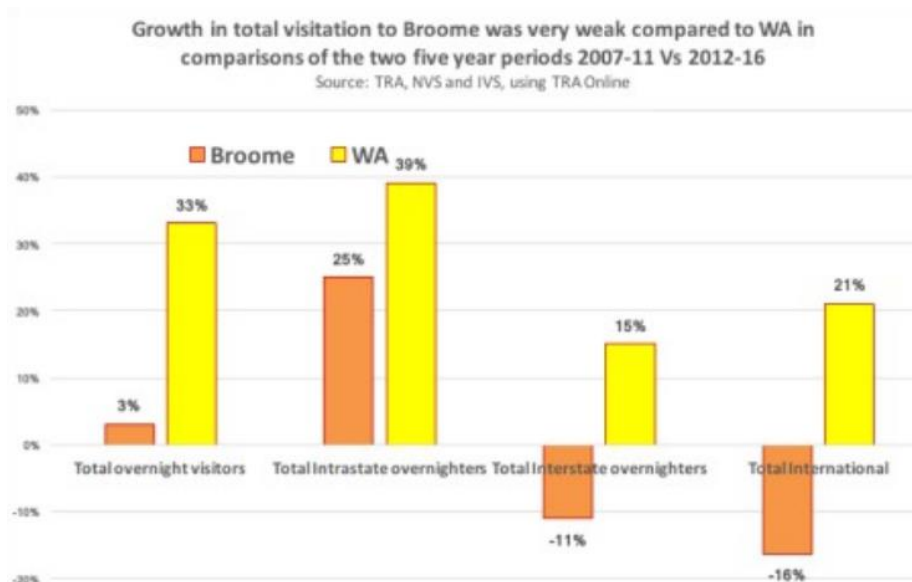
As local providers of information and sales for visitors, tourism organisations in the NT, including Tourism Top End and Tourism Central Australia, often prepare itineraries for families, only to be notified that the flights are too expensive, and we will “go to the Gold Coast instead”. Similarly, research conducted by the Darwin Convention Centre explains the price of airfares across 2016/17 was the reason explained for 2,450 lost delegates. That equates to more than 12,000 lost room nights and estimated \$10 million in delegate spend lost for Darwin (Tourism Top End, 2018).

The high cost of airfares compounds the disadvantage that the people of Alice Springs, and the wider Central Australia region, experience. Tourism is an important economic driver for Alice Springs, but due to its remote location, it is dependent on the cost of airfares. Both overseas and domestic tourists look at the cost of airfares to determine if they can afford to include Alice Springs in their travel itinerary. As a result, the higher the cost of airfares, the lower the number of tourists that visit Alice Springs (Alice Springs Town Council, 2018).

The higher fares between Darwin and NT regional airports such as Alice Springs, Ayers Rock, Tennant Creek and Katherine, compared with airfares between Darwin and capital cities, will be likely to significantly compromise the dispersal of international tourists from Darwin through the recently announced direct flights from China. It is more likely, given their price sensitivity, to fly directly from Darwin to other capital cities. This also will prevent domestic tourists in Darwin from visiting more regional locations in the NT. Moreover, the higher fares between Alice Springs and Darwin, compared to the fares between Alice Springs and other capital cities, will discourage residents in the NT to have holidays within the NT. They will rather fly interstate even overseas instead. This will negatively impact on intra-territory visitation.

The negative social and economic impacts of high airfares have been experienced in other regions; especially in the North and Outback. For example, high airfares act as a significant brake on business in Mount Isa and limit the ability of the local economy to expand and diversify. Similar to Alice Springs in remoteness, residents and tourists rely heavily on air travel. There is a strong willingness within the community to drive tourism growth and develop packages to encourage visitors to stay longer and experience more of the outback. Due to the high cost of air travel, and the low availability of discount airfares and frequency of flights, the holiday and tour packages have to be costly and, therefore, are difficult to promote (Mount Isa Tourism Association Inc (MITA), 2018). This loss in tourism opportunities has a negative impact on its economic development, and its growth as a major tourism destination.

Being a traditional tourist destination, Broome’s tourism has been decreasing in recent years while increasing in WA as a whole, according to Flowers’ (2017) Remote Airfares Broome Case Study (Figure 8). This is, to some extent, associated with high airfares and less connection between Broome and capital cities and large centres.



Cited from (Flowers, 2017): Remote Airfares Broome Case Study

Figure 8: Decreased tourist visitation to Broome

5. Determinant factors of airfares

5.1. Ticket price drivers

There are numerous studies exploring the underlying factors that impact on air ticket prices. In broad terms, the existence of sufficient demand, an airline's ability to recoup its costs and competitor dynamics will determine the commercial viability of air services on any route, and these are also the key factors which underpin airfare pricing (Virgin Australia, 2018).

A study in the US found that there are three key factors impacting the price. They are **Density**, **Distance and Competition**, which explain 52%, 16% and 7% of the variation in average ticket prices (Surry, 2014). It is found that the biggest individual factor is the "density of demand" in the origin state. Large states with smaller populations, or states with lower median average incomes, are more expensive to serve, since lower demand makes it harder to fill airplanes and a dispersed population makes it harder to service airports. Regarding the impact of distance flown in and out of destinations, Surry's study estimated that each additional mile flown adds about 6 cents per mile to the cost of round-trip tickets. The level of competition is another important price driver. States with lower median household incomes also tend to be less well serviced by the airlines, with less competition meaning fewer airline choices and a higher average number of stops between origin and destination (Surry, 2014).

Gillen and Hazledine (2015) (David Gillen & Hazledine, 2015) studied all flights (about 3000) on all regional routes (about 250) with scheduled airline services from one of about 130 regional towns or cities, in regional airline markets in six countries: Australia, Canada, New Zealand, Norway, Sweden, and a sample of three U.S. states. They suggested that the determinants of service and pricing on regional routes align with the standard model of the extent of service between city pairs. The study also shows strong effects of competition on prices and quite substantial intertemporal price discrimination (i.e. consumers are separated into different groups with different demand elasticities by charging different price at different points in time) (David Gillen & Hazledine, 2015). A later study they conducted focusing on Eastern Australia and New Zealand regional routes (David Gillen & Hazledine, 2016) supported their previous findings and also suggested that Airfares are more expensive in regional Australia than New Zealand.

Cameron (2013) examined the economy class airfares published online, totalling some 1,780,832 price points. He grouped the airfares by distance and selected the 20th percentile fare for each distance (where 20% of fares are less, and 80% are more), to produce a graph showing a clear linear relationship between distance traveled and airfares (Figure 9). The study then established a simple equation to model this relationship: $\text{Fare} = \text{US\$}50 + (\text{Distance} * \$0.11)$. The formula suggests that on average, a fare costs \$50 before any flight distance is taken into account, plus an average of 11 cents per mile travelled. The research further analyzed the average cost per mile for fares grouped by airline, using the same methodology. The average costs for Qantas Airways, Virgin Australia and Jetstar Airways are US\$12.9, US\$11.2 and US\$10.3 respectively (Cameron, 2013).

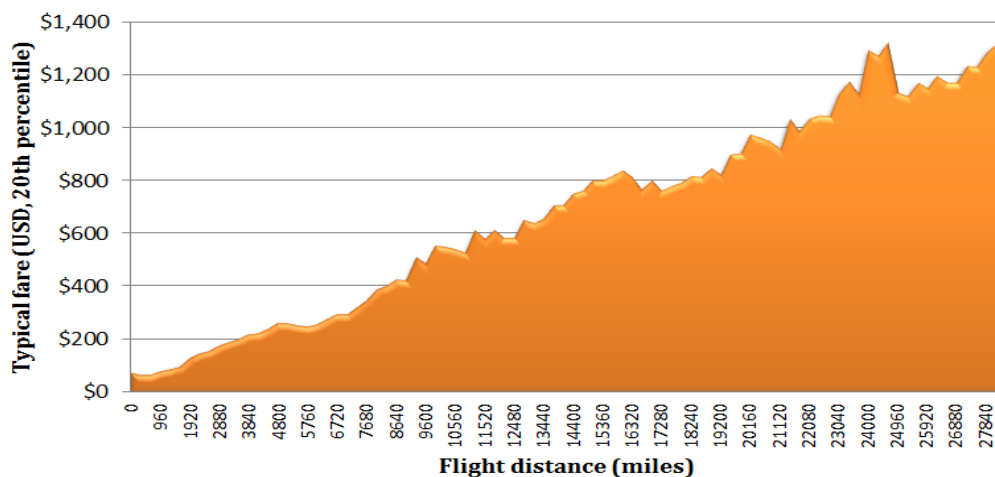


Figure 9: Linear relation between flight distance and airfare (Cameron, 2013)

However, Cameron also recognized that there are many factors which can influence the costs including type of aircraft flown, routes flown, local salary and fuel costs, ancillary revenue, and airport landing fees (Cameron, 2013).

5.2. Airline cost structure

Generally, the overall cost determines available air ticket price. The overall cost will be affected by many factors. It is critical to explore airline cost structures to understand airfare pricing.

Airline cost structures vary depending on a wide range of factors – their business model, markets serviced and so on – and are not generally made publicly available by individual airlines. Moreover, they will vary over time, especially as a result of movements in interest and exchange rates and fuel prices. The following graphic (Figure 10) provided by the International Air Transport Association (IATA) –the international airline industry association, gives the broad picture (Australian Airports Association (AAA), 2018).

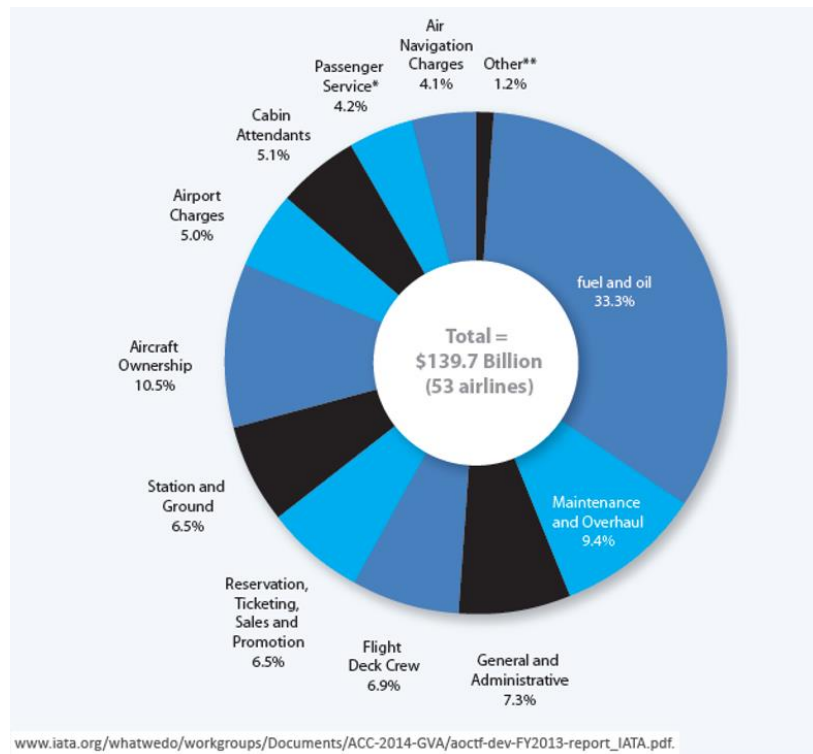


Figure 10: Airline cost structure-1 (Australian Airports Association (AAA), 2018, p32)

In this structure, fuel and oil contributes to one third of total cost, **airport charge and passenger service contributes to less than 10%** of the total cost.

Another airline cost structure provided here is cited from (Mount Isa City Council, 2018). Fuel and salaries are the largest components of airline costs (29% and 20% respectively), and followed by Ownership (16%) and then **Fees & taxes (14%)** (Figure 11) and are therefore the most obvious targets (Mount Isa City Council, 2018).

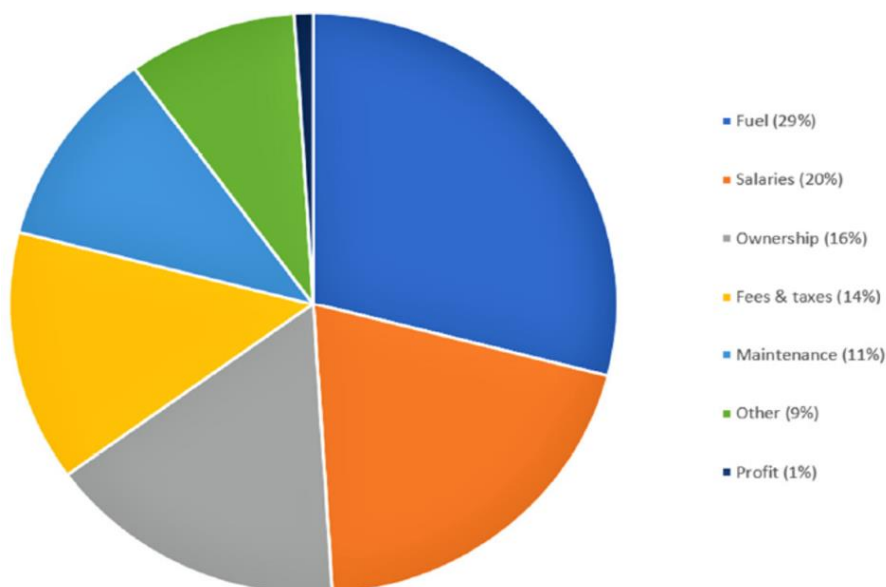


Figure 11: Airline cost structure-2 (cited from (Mount Isa City Council, 2018))

According to The International Civil Aviation Organization (ICAO, 2017), in the US, **aircraft serving (7%)** and **traffic servicing cost (11%)** (associated with airport use) take around 18% of the total operating cost for major airlines (Table 10).

Table 10: Total Airline Operating Cost Breakdown in the US

Functional Cost Categories	
Aircraft operating costs –	Expenses associated with flying aircraft, also referred to as “Direct Operating Costs” (DOC)
Aircraft servicing costs –	Handling aircraft on the ground, includes landing fees
Traffic service costs –	Processing passengers, baggage and cargo at airports
Passenger service costs –	Meals, flight attendants, in-flight services
Reservation and Sales costs –	Airline reservations and ticket offices, travel agency commissions
Other costs, including: –	Advertising and publicity expense – General and administrative expense
Total Airline Operating Cost Breakdown (US Major airline total operating costs):	
– 44% is aircraft operating expense,	which includes fuel, direct maintenance, depreciation, and crew
– 29% is servicing expense	<ul style="list-style-type: none"> • Aircraft servicing (7%) • Traffic servicing (11%) • Passenger service (11%)
– 14% is reservations and sales expense	This figure was 19.5% in 1993, but declined steadily throughout the 1990s
– 13% is overhead expense	<ul style="list-style-type: none"> • Advertising and Publicity (2%) • General and Administrative (6%)

5.3. Airport charges

Although it is suggested in the literature of airline cost structures previously presented (Figure 10, 11 and Table 10) that airport charges take small proportions (from 10-18%), they seem to be an important concern for Australian airlines flying regional routes (Qantas Airways, 2018; Virgin Australia, 2018).

According to Australian Airports Association (AAA) (2018), most regional airports in Australia have a similar pricing structure that consists of:

- A landing charge levied on the maximum take-off weight (MTOW) of the aircraft, for use of the airfield;
- A passenger services/facilitation charge levied on a per-passenger basis, for use of the terminal; and
- One or more security charges, usually levied on a per departing passenger basis, to recover the costs incurred by the airport in screening passengers and their bags, and perhaps other matters, in accordance with the relevant aviation security standards.

Generally, the share of airport charges out of airfares varies considerably depending on the charges themselves, the length of the route, the level of competition on the route and the business model of the airlines involved. Any estimation based on general cost structure is only a reference to any specific route. Research currently being conducted for the Australian Airports Association (AAA) estimates that on average across Australia, airport charges account for **less than 10 per cent of fares** (Australian Airports Association (AAA), 2018).

There is difference between regional airports in their airport charges. Despite difficulties, this report compiles a list of airport charges for a small sample of airports based on limited available information (Table 11).

Table 11: Aeronautical and terminal charges for regular public transport airlines, by airport

	Mount Isa (1)	Townsville (1)	Cairns (1)	Mackay (1)	Broome (2)	Kalgoorlie (3)	Alice Springs (4)	Tennant Creek (4)	Darwin (4)
Aeronautical services (per Pax)	16.89	7.36	13.85		20.37	Total charges for a complete aircraft turnaround were \$9143.83 with the landing fee, terminal services levy of \$3405.60 for 132 passengers and the same for departing flights	9.13	18.00	8.86
Common user terminal charge (per pax)/ Passenger facilities charges	11.15	5.85		10.50			9.59		10.34
Aeronautical services (\$/tonne MTOW)/landing charge				10.30	23.65		25.58	27.19	25.58
Security charge (per departing pax)			2.60	4.31	13.24		9.49		11.03
Checked bag screening (per pax)	2.90			2.02					
Common user check-in (per departing pax)									0.23
Passenger screening charge (per pax)	2.90	2.15				9.95			
Estimated total fees charged for per pax						34.5 (With a full plane of 132 passengers, Virgin)			

Data sources: (1) cited from (Mount Isa City Council, 2018); (2) Broome International Airport Aerodrome Charges (Broome International Airport, 2016); (3) Interview with the City of Kalgoorlie-Boulder council chief executive John Walker (Meachim & Kalgoorlie Miner, 2017); (4) Northern Territory Airports-Conditions of Use 2016-17 (v1.3) (Northern Territory Airports, 2017)

We understand the calculation of airport charges is difficult for each airport even for each route, as it highly depends on types of aircrafts, load factors and other factors such as agreements between airports and airlines. For example, only for landing fees alone, they vary significantly from one airport to another, ranging from as high as \$42.53 per tonne to as low as \$7.75 per tonne, as show in Table 12 (Pilbara News & Zaunmayr, 2017).

Table 12: Landing fees by regional airports (cited from (Pilbara News & Zaunmayr, 2017))

LANDING FEES	
Airport	Landing fee per tonne
Karratha	42.53
Onslow	33.00
Esperance	32.27
Tenant Creek	27.19
Albany	26.50
Darwin	25.58
Port Hedland	24.56
Broome	23.65
Geraldton	22.50
Mildura	21.89
Newman	21.32
Hobart	17.40
Mackay	15.98
Moura	14.36
Albury	13.33
Kalgoorlie	13.25
Townsville	12.37
Rockhampton	11.23
Port Augusta	8.85
Mount Isa	7.75

Source: AVData Australia, 2017-18 local government budgets, and airport documents.
*Based on 2016-17 prices.

The airport charges include more than just landing fees. The comprehensive overall airport charges will affect the cost of airlines and further affect the airfares customers have to pay. Case studies suggest that the airport charges are around 10% of airfares (Case 2 and Case 3). In some cases, the percentage is even lower (e.g. in Case 1).

Case 1: Mackay Airport, QLD

Since 1 October 2016, the following charges (exclusive of GST) have applied to passenger services using Mackay airport:

- » Landing charge of \$10.30 per tonne MTOW;
- » Passenger charge of \$10.50 per passenger; and
- » Security charges:
 - Security charge (passenger screening) of \$4.15 per departing passenger;
 - Security infrastructure charges of \$0.16 per departing passenger; and
 - Checked bag screening infrastructure charge of \$2.02 per departing passenger.

So how much does an airline pay to use Mackay airport? The best way to make comparisons is in terms of the total cost of an aircraft turnaround (that is an arrival and departure) and the cost per passenger.

This requires knowledge of the aircraft being operated and an assumption of the load factor (percentage of seats occupied) of the aircraft. Consider a Qantas Q400 aircraft with a load factor of 75 per cent – this aircraft has an MTOW of 28.998 tonnes and a seating capacity of 74.

	Arriving aircraft cost	Departing aircraft cost	Total cost
Landing charge	298.86	-	298.86
Passenger charge	582.75	582.75	1,165.50
Security charge		112.11	112.11
Security infrastructure charge		8.88	8.88
Checked bag screening infrastructure charge		230.33	230.33
TOTAL	881.43	934.07	1,815.49

So the total amount paid to the airport by the airline for the turnaround of this aircraft is \$1,815.49. On the assumption of 55.5 passengers arriving and departing (74 x 0.75) *sic*, the average cost per arriving and departing passenger is the turnaround cost divided by 111, namely \$16.36.

Source: www.mackayairport.com.au/assets/Uploads/9003-MKY-MAPL-Airport-Conditions-of-Use-V2-website-copy.pdf, AAA analysis

(Australian Airports Association (AAA), 2018, p26).

Case 2: Kalgoorlie Airport, WA

City of Kalgoorlie-Boulder council chief executive John Walker said the total charges for a complete aircraft turnaround were \$9143.83 with the landing fee, terminal services levy of \$3405.60 for 132 passengers and the same for departing flights.

“We also have a screening charge of \$9.95 per departing passenger, which doesn’t apply to incoming flights and is actually a revenue-neutral charge — we only charge the airlines what we are paying the contractor to screen passengers,” he said.

The cheapest flights with Virgin Australia yesterday (22 April 2017) from Kalgoorlie-Boulder to Perth was \$455 at 6.15pm.

With a full plane of 132 passengers, the *Kalgoorlie Miner* calculated \$34.50 of passengers’ fare would go towards airport fees to land one-way, meaning Virgin Australia was charging \$420, which amounts to 70¢ a kilometre.

(Meachim & Kalgoorlie Miner, 2017)

Case study 3: Mount Isa Airport, QLD

Aeronautical charges at Mount Isa do appear high in comparison with these other airports, being at least double those at Townsville. Moreover, for a flight taking off from

Mount Isa and landing at Cairns, the airport charges of \$47.70 represent **over 10 per cent** of the \$435 airfare

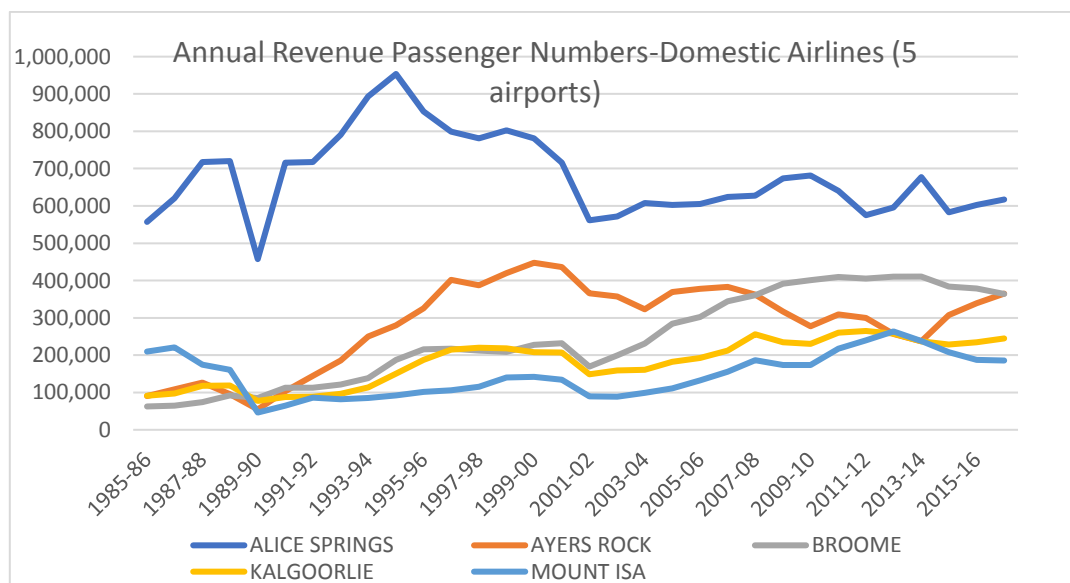
(Mount Isa City Council, 2018).

According to Virgin Australia (2018), one of the most challenging issues they face is the disproportionately high charges imposed by a number of regional airports. Qantas Airways also claims that airport charges per passenger in Northern Australia are higher than in the South, and these charges play a significant role in forming the airfares in regional Australia. For example, 13 of the top 15 most expensive airports in Australia that Qantas flies to fall within QLD and WA; Airport charges are \$16 for airports in NSW, VIC, SA and TAS, and \$25 for those in QLD, NT and WA (Qantas Airways, 2018, p9). According to Qantas Airways (2018), one of unique supply factors for regional destinations is 'airports exercise monopolistic power over airport charges' which has a direct impact on the airfare. It claims indicates that particularly in regional QLD and WA.

Clearly, there are different perceptions regarding the airport charges between airports and airlines. While airports claim they charge reasonable rates to recover their costs, airlines claim the high airport charges are one of key factors responsible for high airfares, especially in the North. It is true that regional airports apply higher airport charges per passenger compared with capital city airports. However, it is unlikely that these charges play a significant role in airfares remaining costly. Considering the figures published in the literature and assuming the possible significant movement in charges in some regional airports, we might argue the proportion could be higher than AAA's claim (i.e. less than 10% of airfare). However, even if as high as 20-25 per cent, it would not necessarily materially affect airfare prices and service volumes.

5.4. Scale of passengers and airfares

Five regional airports in northern Australia: Alice Springs, Ayers Rock, Broome, Kalgoorlie and Mount Isa, have some similarities in terms of their annual revenue passenger numbers (refer to Figure 12), remoteness and population (except Ayers Rock).



Data source: WebAirport_FY_1986-2017

Figure 12: Annual revenue passenger number by regional airport

We compared the return airfares for some top regional flight routes in the region against their revenue passenger numbers (Table 13).

Table 13: Qantas airfares for regional routes (published on 1 May 2018)*

		REVENUE		TOTAL		REV	A/C	Return fares
	CITY-PAIR	PASSENGERS	TOTAL RPKs	AVAILABLE SEATS	TOTAL ASKs	PAX LF %	TRIPS	Red e-Deal (14-17 May) \$
35	Broome - Perth	313 383	521 412 840	420 767	699 253 659	74.6	3 673	712
41	Kalgoorlie - Perth	241 869	130 125 522	415 434	223 503 492	58.2	3 436	495
50	Ayers Rock - Sydney	191 479	417 615 699	245 654	535 771 374	77.9	1 391	531
61	Mount Isa - Brisbane	125 273	197 054 429	186 481	293 334 613	67.2	1 835	756
62	Alice Springs - Adelaide	124 466	163 797 256	181 752	239 185 632	68.5	1 201	489
63	Alice Springs - Darwin	118 772	154 997 460	211 450	275 942 250	56.2	1 766	673

*Date sources: Domestic_aviation_December_2017annual; Qantas website: booking.qantas.com.au

It is hard to identify the relationship between airport passenger scale and airfares. From the Figure 13, there seems no correlation between return airfares and passenger scale.

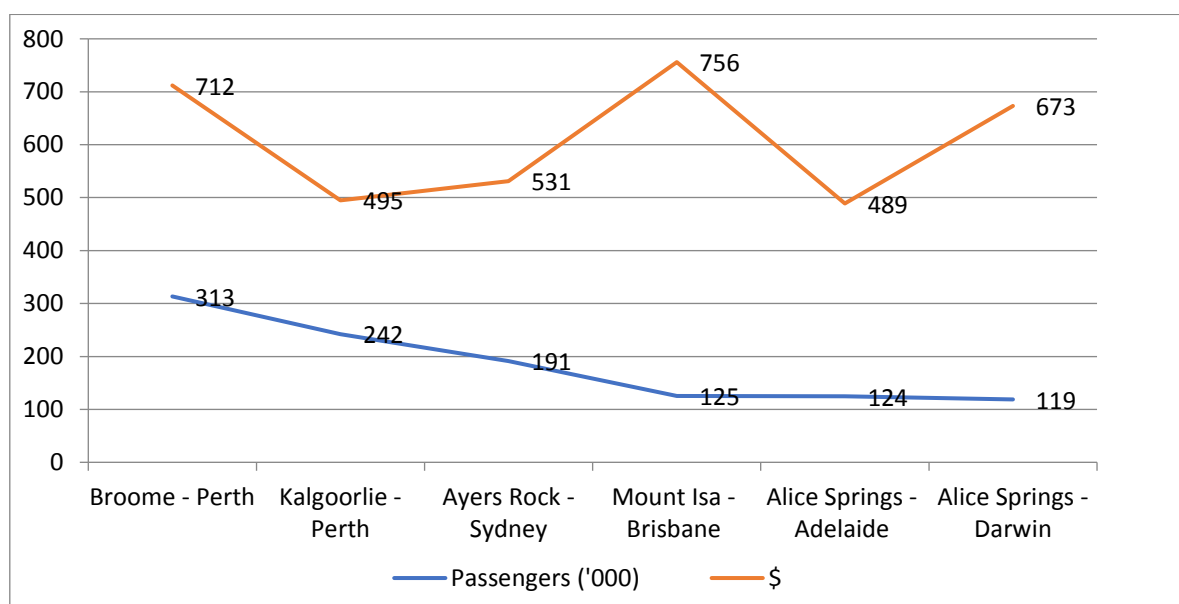


Figure 13: Passenger scales and return airfares

6. Discussion

6.1. Current situation and challenges

Booking information suggests that regional airfares in the North especially in the NT and central Australia are much higher than major domestic and even international routes. Even in the same area, the airfares for Alice Springs are more expensive than those for Ayers Rock. All stakeholders including airlines, airports and passengers hold perceptions that the airfares in regional destinations especially in the northern Australia and outback Australia are high. However, because of the lack of deep research, it is unclear what the specific reasons driving the consistent high airfares are. For the high airfares and less routes offered to the largest centre in central Australia-Alice Springs, they seem not

to be simply explained by passenger scale, airport charges, flight distance and destination population.

We do not have access to detailed knowledge of the various airline operating cost structures in Australia to analyse the appropriateness of airfares. Although it is difficult to access detailed airport charges and special arrangements between airlines and airports on specific routes, the information we collected from airports suggests that airport charges have insignificant impact on the overall level of airfares, as general airport charges are believed to be only approximately 10 percent of airfare costs. Even if that proportion was 20-25 per cent, airport charges are still unlikely to affect the airfares significantly. However, airlines insist that the airport charges are key driver for high airfares. They claim that regional airfares are high because airports are gouging, which is rejected by airports, as 'regional airports simply lack the capacity to do this' (Australian Airports Association (AAA), 2018).

Based on general understanding of airfare pricing and factors impacting on airline cost structure, the Northern Territory faces a number of issues and challenges which impact on the supply, sustainability and cost of air services: 1) long distances; 2) a small population; 3) high infrastructure, regulation (safety and security) and service provision costs (Chamber of Commerce NT (CCNT), 2018; Northern Territory Government, 2018); 4) social economic disadvantage; and 5) less competition. These challenges increase the operating cost of airlines and airports and constrain economies of scale and the commercial viability of both airlines and airports. Eventually these challenges transfer into higher airfares and fewer flight routes, and subsequently damage social and economic development.

6.2. Possible solutions: collaborative efforts of key stakeholders

Population increases in the long term are critical to solving this issue, but it is a very slow process. Feasible short and medium-term solutions need to be developed collaboratively, from both supply and demand sides. Whilst airlines must address their challenges in meeting local demands to keep airfares low, stakeholders in regional destinations must also address challenges to develop lower cost access to air-services.

Existing airlines servicing regional routes have the opportunity and capacity to contribute to reduction of airfares. Airlines recognise that airfares in regional Australia may be higher than between major population centres. They also claim that due to the confluence of supply and demand challenges, these services are not significant profit centres for the group (Qantas Airways, 2018, p5). This statement suggests that a reduction in airfares for these services might result in profit reduction for the group, however this will not have significant impact on the overall profit level for the group. We believe the major airlines are "corporate social responsible", as they have been involved in some ways to help local communities to increase local demand. For example, Qantas Airways has been actively participating in tourism promotion at national level and local level (Qantas Airways, 2018). We believe a responsible airline will work together with regional destinations to lower airfares without compromising services.

Passengers will also have to contribute to the solution. It is likely a fact that Alice Springs residents will probably always be required to pay more for their travel than people living in more densely populated areas. Corporate and government travel might need to be accepted as the backbone of air service delivery in Alice Springs (NT News, 2018). We must understand that cheap airfares are good but unreasonably low fares are not sustainable. As estimated by Alice Springs Airport General Manager David Batic, for long term economic viability for both airlines and passengers, the average sustainable airfare should be "between \$300 and \$400 one way with airfares below \$300 considered as 'cheap'" (NT News, 2018).

6.3. Better access: from demand side

As a destination with small population, and with a huge potential for tourism development, Alice Springs and other regional destinations need to embrace the need for both inbound and outbound travel to ensure sustainable air services for the long term. AIRBIZ's (2012) framework (Figure 14) outlines the key roles for different stakeholders including government, airport and industry in developing and improving the access to fair air-services for regional destinations.

Figure 14: Role of key stakeholders in access development (AIRBIZ, 2012, p53)



The model originally focuses on developing access to new air-service, but it works well on improving accessibility for exist airlines. Successful regional destinations, from an air-service perspective, always enjoy the full support at all levels of local tourism, government, product and local businesses to build an attractive airline business case. A long-term strategy and supporting investment is needed. State and regional tourism organisations also need to embrace the need for both inbound and outbound travel to ensure sustainable air services for the long term. This could mean drawing on reciprocal relationships with other tourism organisations from source markets and building relationships with relevant external parties. It is important to clearly identify all the passenger source markets possible, who can influence travellers and develop partnerships to invest in marketing, awareness, reciprocal support and business ties between the two destinations connected by an air service (AIRBIZ, 2012). The core message of this framework is collaboration.

6.3.1. Government subsidies

Government can play important role in improving regional air services through the development and implementation of pro-regional air service policies, such as government subsidies and incentives for regional air services. According to ACIL ALLEN CONSULTING (2016), on average regional airports had a 6% of funding gap in 2014 between their expenditure and service revenue. The funding gap for RPT airports was 3.4%. Proportion of aeronautical revenue was 4.3% of total revenue for RPT airports (ACIL ALLEN CONSULTING, 2016, p21). Government subsidies and incentives would help to fill such funding gap and ensure airports provide better service to airlines to improve air services.

Government subsidies and incentives are important for regional air-services. Usually the profit margin of airlines is low and for regional routes is even lower. According to IATA (IATA, 2016), airlines in the Asia-Pacific region were expected to generate a net profit margin of 2.9%, which was US\$4.44 on a per passenger basis. Airport charges (saying \$30) account for around 10% of the total operating costs, which do not significantly contribute to airfares. However, its variation will significantly affect the profit margin of airlines. This is an important reason why airlines insist the airport charges are too high. From this regard, if government subsidies and incentives can be partly transferred to airlines through reduced airport charges, there would be a positive influence on the economic viability of a route (although not significantly affect the airfares directly). That will eventually contribute to sustainable air-services in the region. International experiences support this practice especially on regional flight routes which are unprofitable. Malina, Albers and Kroll (2012) investigated the pricing practices at 200 airports in the European Union (EU). The analysis shows that airport incentive programmes are generally a common tool of airport pricing. This study also finds evidence of bilateral agreements between airport operators or regional authorities, and airlines, to incentivise air routes. In many cases, the average level of landing and take-off, parking and positioning, and passenger charges is generally reduced by more than 10% due to incentive schemes offered at airports (Malina et al., 2012). Governments provide various forms of financial support for sustaining unprofitable regional airways, especially when such airways are essential to local livelihoods and economies. However, inefficient provision of subsidies has been subject to worldwide criticism. Minato and Morimoto's (2017) case study in Japan examined the load factor guarantee, a dynamically interdependent business model for airline-airport coexistence where an airline and an airport agree on the load factor of a flight, after which either party compensates for any discrepancies between the actual and agreed-upon load factor. The study suggests that successful coexistence between an airline and an airport hinges on the integral management of annual negotiations regarding the target load factor and the monthly demand adjustment of subsidies. In addition, although a subsidy represents a temporary financial loss for an airport, it is an effective way of maintaining long-term, airline–airport coexistence (Minato & Morimoto, 2017).

There are different government policies at different levels to subsidise the regional air-services in Australia, including those that would directly reduce the airfares for residents. For example, there are government residents scheme in WA and Qld to allow local residents to purchase cheaper air tickets (Qantas Airways, 2018). There has not been such policy in the NT. It is necessary to develop a policy package to recover some of the airport costs, reduce airport charges on airlines to increase their profit margin, and offer special discount prices for local residents. These incentive and subsidies could be useful to improve air services and lower the airfares in the NT and in central Australia.

6.3.2. Coexistence of airports and airlines

For regional air services, airlines and airports seem not to collaborate well. They have different perceptions on airport renovations and upgrade, for example. Airports claim that “There is evidence that some airlines use their market power to obstruct investments at airports that would facilitate

greater competition and generate other benefits for regional communities” (Australian Airports Association (AAA), 2018), while the airline suggests that “New investment in airport infrastructure must be carefully considered and fully consulted with airlines. Otherwise the updated infrastructure cannot be fully utilised and functioned but has to recover the cost by increased airport charges” (Virgin Australia, 2018).

According to the airport charge model, airport upgrade and renovation will increase the airport charges, which will increase the airlines operating cost given the passengers will not increase proportionally in the short term. These will ultimately push airfares higher. According to Sunday Mail (Jones, 2017), South Australia’s main regional airline carrier warns ticket prices will rise when upgrades to two regional airports are complete, jeopardising the future of its service. This is a dilemma: on one hand, the relatively insufficient infrastructure of regional airports constrains the capacity of the airports which is an important factor of high airfares; on the other hand, if the infrastructure is upgraded and renovated, the airport needs to recover its increased investment costs in a limited time and thus increase the airport charges, increasing the airlines’ costs and ultimately transferring this increase to airfares. The only solution is to involve all key stakeholders in the decision-making process to achieve a solution acceptable to all sides. Government’s role including government subsidy policy is necessary.

6.3.3. Pro-regional policies are needed

The current Fixed Airport Security and Safety Costs are believed to result the higher security charges for a regional airport like Alice Springs (Northern Territory Airports, 2011). The level of security infrastructure and capability required at all “security designated” airports makes them sensitive to passenger throughput i.e. lower passenger numbers mean higher charges. Security charges are relatively high at Darwin and Alice Springs because they both are security designated airports with low passenger volumes. Estimated Domestic Security Charges per passenger for Return Trip would be around \$10 for Darwin and \$13 for Alice Springs, compared \$3-5 for other capital airports (Northern Territory Airports, 2011).

The Passenger Movement Charge (PMC) increased from a flat \$55 to \$60 on 1 July 2017 (Tourism Top End, 2018). Since its introduction in 1995, the PMC has more than doubled, making it the second highest departure tax amongst OECD countries. As the PMC is not tied to distance, its impact is disproportionate on visitors travelling short distances, such as between South East Asia and the Northern Territory. PMC revenue is anticipated to rise to cover \$1.1 billion in 2019-20, while the cost of passenger movements at international airports is only \$250 million. Modelling by the International Air Transport Association suggests that every 10 per cent increase in departure taxes leads to a five to seven per cent decline in leisure traveller demand (Northern Territory Government, 2018).

Reducing the PMC unilaterally, or for priority North Australian regional destinations, would reduce the disproportionate cost burden currently being experienced in these areas. The PMC’s uncompetitive nature inhibits tourism opportunity and we believe it should be rolled back to cover costs of border agencies only (Tourism Top End, 2018).

We believe it would be a good option that Australian Government take pro-regional policies, as recommended by the Northern Territory Government: a) introduce network pricing for airport security charges (with the cost to be shared equally per passenger nationally), and b) commit to a timetable for a phased reduction in the Passenger Movement Charge, commencing in 2019-20, to return it to a cost-recovery based levy (Northern Territory Government, 2018).

6.4.Competition: from supply side

6.4.1. Competition

Literature and survey support that competition will play a key role in reducing the regional airfares and increasing services.

While suggested by research (e.g. Cameron, 2013; David Gillen & Hazledine, 2015; David Gillen & Hazledine, 2016; Surry, 2014), competition is an important factor for airline pricing; Zhang, Wang and Fu (2017) studied the competition of air services in regional Australia. The study suggests that the Qantas airline group uses Jetstar as a fighting brand, such that Jetstar flies to a destination if and only if the regional airport is also served by Virgin Australia, the group's major competitor. We hope that on more regional routes, such competition will present to contribute to lower airfares and better connection, particularly for central Australia. Zhang et al. (2017) empirical results support the introduction of a consistent aviation policy across Australia, especially for issues related to airline competition and demand stimulation. However, special consideration needs to be paid to regional airports to help them deal with economic shocks and cover fixed costs.

Alice Springs is one of largest airports in Australia, regarding its revenue passengers, however, there are only 3 airlines (Qantas, Virgin and Air North) serving the region (only two flights to Darwin daily); Meanwhile Ayers Rock has three major airlines (Qantas, Virgin and Jetstar) which all fly Ayers Rock-Sydney (three flights daily). The competition is likely the most significant reason for cheaper fares between Ayers Rock and Sydney. It is believed that encouraging more airlines operating central Australia will re-activate the competition of air services from the Red Centre to benefit local people and local development. Reintroducing low cost carriers like Jetstar and Tiger Airways should be encouraged.

6.4.2. Cabotage

A perennial topic in Australia is whether cabotage should be allowed in some regions such as in northern Australia. It has been suggested that selected cabotage opportunities could be afforded and ring-fenced, on occasions where existing domestic operators do not wish to trial such attempts (Tourism Top End, 2018). It is believed that 'The Australian Government will also consider cabotage in some exceptional cases, for example for operational reasons when domestic services are temporarily unavailable, or on a longer-term basis when a foreign carrier seeks to operate a route which is not currently served by Australian airlines or which requires a government subsidy (such as routes between some of Australia's external territories).' (Tourism Top End, 2018).

Supporters believe that cabotage, a more open skies policy, would improve the competition and increase the accessibility of regional destinations and eventually benefit local people by reduced ticket prices, and also stimulate tourism and help business by cutting the cost of transporting cargo (Financial Review, 2015).

Major airlines such as Qantas Airways and Virgin Australia are clearly against cabotage for domestic routes. They suggest that cabotage would have substantial economic, employment and operational risks, and cabotage would undermine Australia's position in future air services negotiations (Qantas Airways, 2018). Virgin Australia says cabotage would have far-reaching consequences for the long-term viability of local aviation and tourism industries (Travel Daily, 2018). The Airlines for Australia & NZ representative body also rejects cabotage suggesting "there is no business case for making changes to the current cabotage restrictions and no international precedent for doing so" (Travel Daily, 2018).

Globally, cabotage has been strictly regulated, although cabotage laws and the definition of commercial aviation vary worldwide. In some countries there are no restrictions on cabotage, such as Saudi Arabia, while in some countries cabotage is totally prohibited such as Kuwait and Mozambique; in more countries, there are restrictions such as in European countries like UK, France, Germany, Italy and Russia (JETEX, 2017).

The international practice tells us that cabotage really depends on specific situation in different countries. It is worthwhile to take into a serious consideration a limited introduction of cabotage into Northern Territory including central Australia. As suggested by Chamber of Commerce Northern Territory (Chamber of Commerce NT (CCNT), 2018), to allow foreign carriers to carry domestic passengers to fly some domestic connection routes, for example from Darwin to Alice Springs, would have a double impact, on both providing better connectivity for international tourists and driving costs down for domestic passengers. As indicated by (Chamber of Commerce NT (CCNT), 2018), this has precedent.

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