

Airline Deregulation and Domestic Tourism

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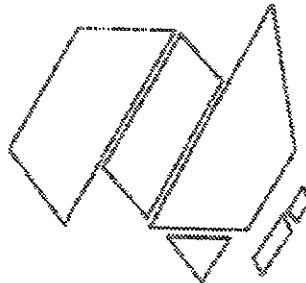
Abstract:

This paper attempts to examine the effects of airline deregulation on the travel pattern and transport usage of domestic Australian tourists. The data used in the analyses is the BTR's Domestic Tourism Monitor (DTM). The analyses undertaken focuses on two sets of traveller classifications based on the destination chosen (interstate vs intrastate) and the purpose of the trip (business, holiday and VFR). Analysis of travellers' transport usage is made not only in terms of the different transport means, but also in terms of the to-destination and within-destination movements that form part of all tourism activity.

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1.0 INTRODUCTION AND OVERVIEW

The termination of the two-airline policy from October 1990 has been one of the major cornerstones of the Federal Government's far reaching aviation reform initiatives since the mid-1980s. Prior to airline deregulation, the existing trunk airlines, Ansett and Australian Airlines, concentrated their services in the eastern seaboard of the country where close to two thirds of the total Australian population live. The entrance of two new airlines, COMPASS I and COMPASS II, after deregulation effectively expanded the aggregate domestic aviation network as their flight schedules included new routes, as well as existing routes which were sparsely served by the two existing airlines. These two new airlines have since collapsed, COMPASS I in December, 1991 and COMPASS II in March, 1993. Nevertheless, the aviation reforms announced in Minister for Aviation and Shipping (1992) are likely to sustain the momentum for greater accessibility and affordability of domestic air travel which were the hallmark of the COMPASS I and II days. Of particular relevance are the move towards multiple designation of Australian carriers on all international routes, elimination of the artificial barrier between domestic and international operations for all Australian carriers and entry of New Zealand carriers in the domestic aviation market.

Studies undertaken to evaluate the impacts of airline deregulation include Smith and Street (1992) on its welfare effects, BTCE (1991 and 1993) on its downward pressures on air fare levels and BTCE (1991 and 1992) on the increasing service levels it has engendered in the airline industry. Of most concern to the tourism industry, however, is how these first-order effects of deregulation (the expansion of the domestic aviation network, the decreasing fare levels and increasing service levels) affect the travel and transport usage pattern of domestic Australian tourists. This is particularly important in the context of planning for the transport infrastructure needed to meet the growing tourism activity.

In this paper data from the Bureau of Tourism Research's (BTR's) Domestic Tourism Monitor (DTM) is used in an attempt to analyse the impacts of airline deregulation on the travel and transport usage patterns of domestic Australian tourists. A key feature of this analysis is the distinction made between the to-destination and within-destination movements of domestic tourists.

A conceptual framework for the proposed analysis is provided in the next section. Section 3 describes the data used in this study, while Section 4 discusses the research findings. Finally, the conclusions of this study are given in Section 5.

2.0 CONCEPTUAL APPROACH

TRAVEL CLASSIFICATIONS

The introduction of airline deregulation in October, 1990 coincided with the start of the economy's slowdown. Thus, the scope of this study necessarily includes both events. The discussions below explore the hypothesised effects of the economic downturn and airline deregulation on the travel incidence and transport usage of two groups of travellers defined in terms of their chosen destination (interstate vs intrastate) and main purpose of visit (holiday, visiting friends and relatives, and business)

Interstate vs Intrastate Travel

As they tend to be more costly relative to intrastate travel, the dampening effect on tourism activity of the economic downturn is likely to be accentuated in the case of interstate travel. Innes (1993) provides anecdotal evidence which seems to confirm this. However, there are other low-cost travel options apart from diverting from interstate to intrastate travel, such as down scaling of accommodation and transport used; group travel (using private or rented vehicle); and combining different trip purposes. It is, therefore, unclear that adverse economic conditions will have a consistent effect on the interstate-intrastate travel split.

In contrast, airline deregulation is expected to: (1) divert some intrastate travel to interstate travel; and (2) increase air travel usage at the expense of other transport modes. Total trip cost is a function of both the travel time and the applicable trip fare. Air travel's inherent advantage in travel time, complemented with a competitive fare under deregulation, results in total trip costs that are highly competitive with those of other transport modes. This competitive edge should be especially pronounced where longer distances are involved, as it is in such instances where the time and fare savings are likely to be the greatest. Travellers who would otherwise solely consider intrastate destinations

will be more likely to consider interstate destinations as the latter become more affordable.

Main Trip Purpose

Visitors generally have multiple travel objectives. A business traveller to Adelaide for a conference might also find the time to visit local friends and relatives in the area. This is recognised in the DTM which captures both the main purpose, as well as the other reasons, for trips undertaken by travellers. This study focuses on the main purpose of the trip as it is likely to be an important influencing factor in the incidence of travel and in the choice of transport means.

Studies in tourism demand generally identify three main purposes of tourism travel: holiday, visiting friends and relatives (VFR) and business. Holiday travel is highly discretionary and subject to significant influence by uncertainties in the economy. VFR travels are less discretionary, with relatively more predetermined travel decisions and destination choices, though still influenced by similar factors as holiday travel. Business travel, too, is less discretionary than holiday travel, though still subject to the vagaries of the economy's performance. Pilarski (1993) suggests that VFR travellers are the most committed, or least discretionary, among all traveller types. However, he made this suggestion in the context of the potential link between inbound tourism and immigration. The strength of this commitment might be less in the case of domestic tourism.

In short, all traveller types are susceptible to an economic slowdown, with holiday travel likely to be most adversely affected. In some cases, VFR travel may occur as a consequence of a decline in holiday travel, as when the less costly travel option chosen is the combination of travel purposes. For instance, combining holiday with VFR trips will likely result in decreased holiday travel and increased VFR travel as the former tends to be subsumed under the latter. There are also likely to be some shifts from interstate to intrastate travel among both holiday and VFR travellers as people opt for more affordable travel options.

The deregulatory period since 1990 has seen a proliferation of attractively-priced tour packages involving air travel. Highly discretionary travellers, such as those on holidays, are in the best position to respond to these offers (Higgins (1993)). VFR and business travellers, with their relatively more predetermined destination points, are much less

likely to do so. Consequently, a systematic shift to air travel from other transport modes is more likely to occur among holiday travellers.

MOVEMENT TYPES

Movements undertaken by tourists may be classified into two types: (1) relatively long movements to reach the main destination points, as when tourists go to Cairns for a holiday ("to-destination" movements); and (2) short movements within the main destination areas to visit specific attractions and events, as when these tourists visit a local Aboriginal gallery or the Great Barrier Reef ("within-destination" movements). Within-destination movements by tourists generally require primarily land-based mobility options, such as walking, privately-owned or rented vehicles, taxis, trains, trams, buses and coaches. Even water-based attractions and events, such as snorkelling and scuba diving in the reefs, require land-based mobility means for tourists to reach the marinas. Thus, the land transport system will always be the key infrastructure in within-destination movements in tourism. For to-destination movements the range of transport options available is much wider and theoretically includes all those which are available for within-destination movements, as well as those which are not (such as air travel).

Within-destination movements tend to affect transport infrastructure provided by local governments and smaller transport operators (for example, taxis, provision of adequate parking facilities), while the Federal and State governments and larger transport operators tend to have jurisdiction over those transport infrastructure involved in to-destination movements. The distinction between these two movement types is an important input in assessing the funding and investment adequacy for tourism-related transport infrastructure development. Local governments are increasingly becoming aware of the need for a more coordinated action on their part to respond to the demands and opportunities of tourism (Hunter Valley Research Foundation (1993)).

3.0 DATA

The data source for this study is the Domestic Tourism Monitor (DTM) data series on the BTR's CD-MOTA, or CD-Monitor of Tourism Activity (Bureau of Tourism Research (1993)). The DTM omnibus survey collects data on domestic Australian travellers'

expenditure and travel patterns on a fiscal year basis. The resulting annual *Domestic Tourism Monitor* published by the BIR (1992) provides a summary of key information items of importance to the tourism industry. In comparison, the DTM data series on the CD-MOTA contains all the data collected in the survey. The current version of CD-MOTA contains data during the survey years from 1984-85 to 1991-92.

'Tourism', as defined by the DTM, is any travel by Australians residents involving a stay away from home for one or more nights and requiring a journey of at least 40 kilometres from home, undertaken for any reason, except where the journey is related to taking up employment. For this reason, working holidays, health-related trips, business trips, educational trips and other trip types not normally associated with the traditional notion of tourism as holiday making are captured in the DTM. This study focuses on the three main trip purposes: visiting friends and relatives (VFR), business and pleasure/holiday. A fourth category, 'Others', is introduced in order to capture all the other trip purposes not otherwise classified under the three categories above. As a residual category, it is difficult to provide more comprehensive analysis of 'Others' and no attempt to do so will be made.

The DTM does not explicitly make a distinction between to-destination and within-destination movements. However, they can be inferred from the transport-related data that are collected. 'Main transport used' captures the key transport means used to reach the main destination, and suggests reference to to-destination movements. 'All transport used' includes all the transport means used by travellers for the duration of their trips. When adjusted for the relevant to-destination movements, they will tend to capture the transport means for the within-destination movements involved. However, in instances where several side *visits* are undertaken in the course of the trip, the data captured will be less reflective of within-destination movements. For instance, take a Perth-based traveller who decides to go to Cairns for a holiday. He/she might achieve this by driving from Perth to Brisbane and staying a night or two there before finally flying out to Cairns. In this case, the transport used for the corresponding to-destination movement is likely to be reported as private/rented vehicle, while that for the within-destination movement will likely reflect the use of a plane.

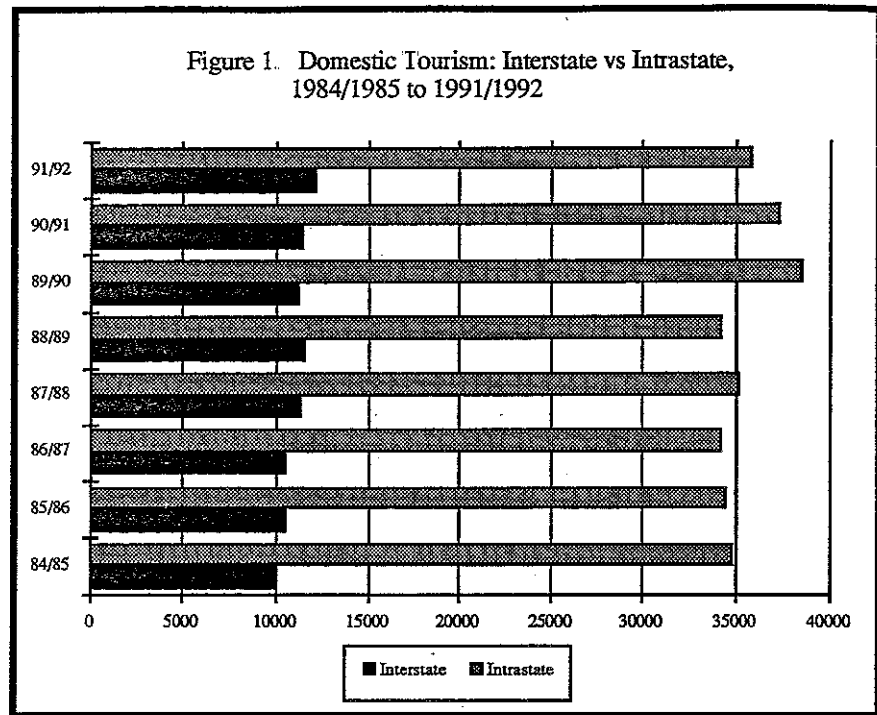
4.0 FINDINGS

Domestic tourism constitutes approximately 75 percent of total tourism activity in Australia. The domestic share of total tourism has declined in recent years as inbound tourism has experienced continuing dramatic growth since the mid-1980s. Nevertheless, the annual volume of domestic tourism activity remains significant and has oscillated in the 45.0-50.0 million range between 1984-85 and 1991-92. The peak level of activity during that period was reached in 1989-90, after which there has been a slight, but consistent, decline as Australia slid into a recession and as the real price of international air fares continued to decline.

Airline deregulation took effect from the first half of the 1990-91 fiscal year. For this study, however, the designated end-of-regulation date used is 1988-89, not 1989-90. The pilots' strike which started in August 1989 caused a 16.5% drop in plane use among domestic Australian tourists in 1989-90. Use of the 1989-90 figures would have overstated the impacts of deregulation on travel and transport usage patterns. The resulting comparative analyses involve a pre-deregulation period from 1984-85 to 1988-89 and a post-deregulation period from 1988-89 to 1991-92.

INTERSTATE VS INTRASTATE TRAVEL

Figure 1 shows the interstate-intrastate split of aggregate domestic tourism activity from 1984-85 to 1991-92. Except for a slight pilots strike-induced decline in 1989-90, interstate travel has grown modestly, but consistently, through the period covered. On the other hand, the volume of intrastate travel experienced a dramatic rise in 1989-90 and a consistent fall thereafter. As indicated previously, the substitution of intrastate travel for interstate travel is only one of a range of options available to potential travellers to switch to more affordable travel arrangements under conditions of economic uncertainty. Consequently, there may be no consistent relationship between this interstate-intrastate travel split and the state of the economy's health. Figure 1 appears to confirm this, showing the level of both interstate and intrastate travel to be higher from 1989-90 at a time when the economy had started to deteriorate.



Using GDP and the foreign exchange rate as alternative representations of the economy's health, Table 1 shows the correlation coefficients between these economic indicators and interstate, intrastate and aggregate domestic tourism activity. These figures indicate a

Table 1. Pearson Correlation Coefficient, 1984-95 to 1991-92

	<u>GDP</u>	<u>Foreign Exchange</u>
Total Activity	.8589**	.7317*
Interstate	.8998**	.7455*
Intrastate	.6650	.5753

* Significance level $\leq .05$
 ** Significance level $\leq .01$

high degree of correlation between the two sets of variables. However, only in the cases of interstate travel and total domestic tourism activity are the figures statistically significant, suggesting that the economy's health does not fully explain the interstate-intrastate travel split.

While the volume of aggregate interstate travel increased only by 4.7 percent during the deregulated period covered, the impacts are much more dramatic at the State/Territory level. Western Australia, the farthest from the dominant Sydney-Melbourne-Brisbane corridor, appears to have benefited the most from airline deregulation, experiencing increases of 53.7 percent and 59.7 percent for interstate incoming and outgoing traffic, respectively, and a 17.5 percent increase in intrastate tourism activity during the deregulated period covered.

To-Destination Movements

Table 2. To-Destination Movements in Domestic Tourism
% Change in Trip Volume Before and After Deregulation

	<u>Interstate</u>		<u>Intrastate</u>	
	<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
Plane	+ 4.0	+53.2	- 9.0	+26.1
Bus/Coach	+80.6	-40.2	+35.9	- 2.0
Private Vehicle	+ 9.2	*	- 3.4	+ 8.9
Rented/Hired Vehicle	+77.9	-38.3	*	-20.0
Train	+ 3.0	-14.9	- 7.0	*
Ship/Boat/Ferry	+37.0	-29.7	+46.9	- 9.4

* Insignificant change

Table 2 shows the growth in the use of the different means of transport for interstate and intrastate to-destination travel before and after deregulation. Except for *Plane* and *Private Vehicle*, the use of all means of transport effectively collapsed during the deregulated period covered. In contrast, *Plane* usage for both interstate and intrastate travel increased by 53.2 percent and 26.1 percent, respectively; its combined growth for the core deregulatory years of 1990-91 and 1991-92 stands at 90 percent. *Private Vehicle* remains the key transport means in intrastate to-destination trips, registering around 31 million trips in 1991-92, followed by *Plane* with slightly less than one million trips. This is a

30:1 ratio, a decline from the 35:1 ratio in 1984-85. Nevertheless, it seems unlikely that *Private Vehicle* will lose its dominance of the intrastate to-destination market.

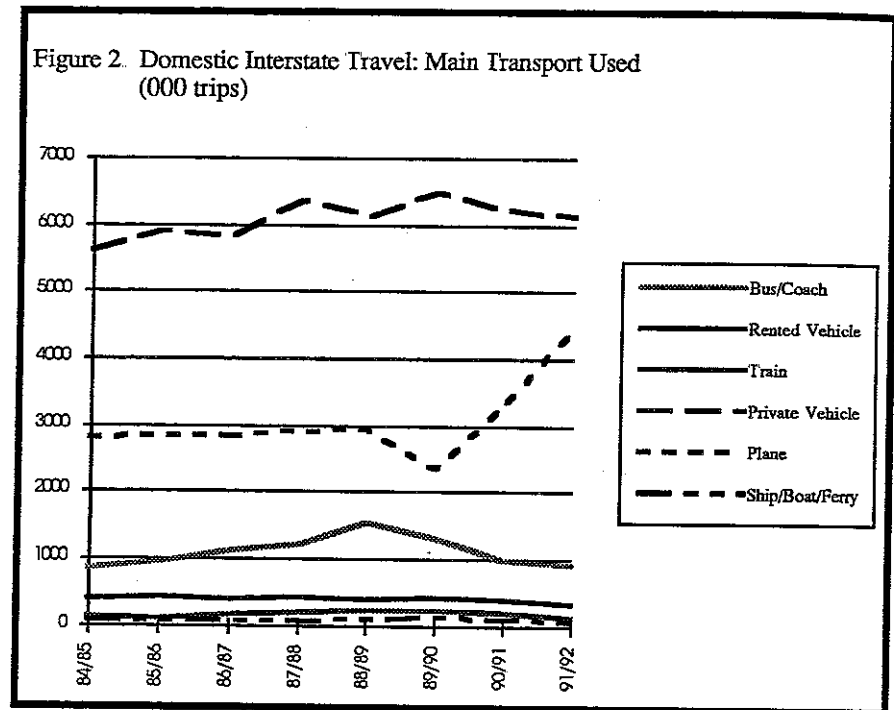


Figure 2 shows the usage level of different transport means for domestic interstate travel. In order of importance, the top three transport means are *Private Vehicle*, *Plane* and *Bus/Coach*. Note that *Plane* usage plunged in 1989/1990 due to the pilots' strike, but has since recovered dramatically during the core deregulated years of 1990-91 and 1991-92. By 1991-92, the usage ratio between *Private Vehicle* and *Plane* declined to 1.4:1, compared to the 2:1 ratio in 1984-85. This suggests a closing of the gap in travellers' preferences between these two transport modes for interstate travel. *Private Vehicle* is increasingly being challenged by *Plane*, though it remains a popular means for interstate travel. Its continuing popularity for both interstate and intrastate travel attests to the competitiveness of *Private Vehicle* in group travel. *Bus/Coach* usage, on the other hand, peaked in 1988-89 and has since declined to a level which is almost half that volume by 1991-92. The bulk of this lost traffic appears to have been gained by *Plane*.

Long-distance travel is a natural market for airlines operating under a deregulated environment, thereby complementing air travel's shorter transit time with a more competitive pricing structure. None of the other transport means are ever likely to compete successfully with *Plane* on transit time in longer-distance travel, whether interstate or intrastate. The mothballed Very Fast Train provides the only potential land-based competitive threat to air travel, though the resulting competition would generally be restricted to short- and medium-distance destinations such as Canberra-Sydney and Sydney-Melbourne. Unless the other transport modes are able to position themselves as the actual tourism experience in themselves (as in the Indian Pacific) rather than as a means to reach a destination, then they will need to be extremely price competitive in order to compensate for air travel's inherent speed advantage.

Within-Destination Movements

Table 3. Within-Destination Movements in Domestic Tourism
% Change in Trip Volume Before and After Deregulation

	<u>Interstate</u>		<u>Intrastate</u>	
	<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
Plane	+15.0	+128.6	-37.0	+11.8
Bus/Coach	+31.7	+18.1	+19.6	+16.5
Private Vehicle	- 8.0	+34.8	+5.3	+42.9
Rented/Hired Vehicle	-1.1	+22.8	+6.0	+2.5
Train	+64.0	+20.7	+8.5	+42.7
Ship/Boat/Ferry	+30.4	+25.2	-6.3	+6.3

*Negligible change.

Table 3 shows the change in the level of usage before and after deregulation of the different transport modes for within-destination movements. In contrast to the trends in to-destination movements, volume usage of the different transport means increased across the board for both interstate and intrastate travel after deregulation. Transport means such as *Bus/Coach*, *Rented/Hired Vehicle*, *Train* and *Ship/Boat/Ferry*, which experienced significant usage decline for to-destination movements, posted healthy usage growth rates for within-destination movements, though at lower rates in some instances. They appear to be finding their niche in the within-destination market, complementing the

usage of both *Plane* and *Private Vehicle* in to-destination movements. The possibilities for capturing the transport means for side *visits*, rather than for within-destination movements, in these figures is likely to be greatest for *Plane*. Thus, the corresponding figures for this transport means should be used with caution.

In summary, the conclusions to be drawn from the analyses in this section are:

- *Private Vehicle* is the main transport mode for both to-destination and within-destination trips. It is particularly popular for intrastate and shorter-distance interstate travels.
- *Plane* has attracted considerable traffic at the expense of most other transport means. It has gain considerable ground in the case of interstate travel.
- The role of *Bus/Coach, Train, Rented/Hired Vehicle* and *Ship/Boat/Ferry* in to-destination trips has declined significantly since the deregulation of the domestic aviation market. This decline is likely to continue in the future. The niche markets for these transport means are in within-destination trips, complementing *Plane* and *Private Vehicle* which are likely to dominate to-destination trips.

MAIN TRIP PURPOSE

Holiday has the largest slice of the total domestic tourism market, making up approximately 40%-45% of this activity, followed by VFR (20%-25%), business (15%) and others (10%-15%). In general, there is a 3:1 intrastate-interstate ratio for holiday, VFR and others, and a 2:1 ratio for business.

The volume of trips by purpose of visit from 1984-85 to 1991-92 are shown in Figure 3. Breaks in the four data series are clearly observable in 1988-89. Holiday travel, the most discretionary trip purpose, experienced modest but perceptible growth until that year, after which trip volume has been flat. This conforms to expectations on the impact of economic uncertainty on discretionary activities. In contrast, business and VFR, both relatively flat until 1988-89, experienced significant growth since then.

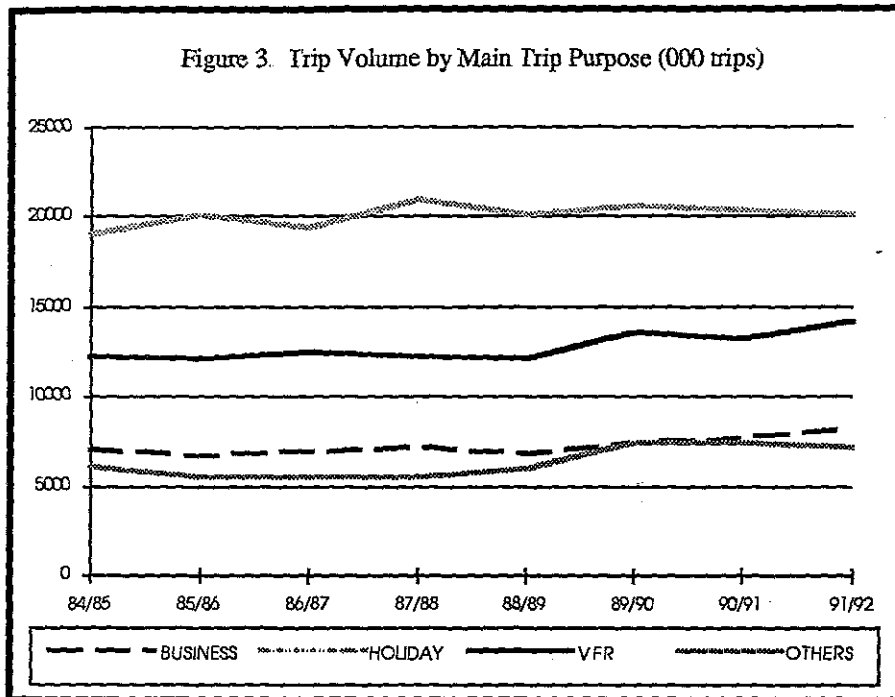


Table 4. Domestic Tourism Activity By Trip Purpose
% Change in Trip Volume

	<u>Interstate</u>		<u>Intrastate</u>	
	<u>1984-88</u>	<u>1988-92</u>	<u>1984-88</u>	<u>1988-92</u>
Holiday	+28.2	- 5.3	- 0.4	+ 1.8
VFR	+ 2.7	+28.2	- 2.8	+14.9
Business	+ 0.9	+26.8	- 5.5	+16.5

By disaggregating all trip purposes between interstate and intrastate travel, the sources of these growths can be more clearly identified, as shown in Table 4. During 1984-85 to 1988-89 the pattern was consistent among the three trip purposes: increasing interstate travel and decreasing intrastate travel. During 1988-92 interstate holiday travel declined while all other subgroups increased. These results are consistent with travellers opting to

combine different trip purposes and/or shifting from interstate to intrastate destinations in the face of uncertain economic conditions. In general, the more discretionary trips (holiday) are, strictly speaking, foregone but may, in reality, be subsumed under the less discretionary trip purposes (VFR and business). The resulting trips, in reality combination trips such as business-holiday, business-VFR and VFR-holiday, are then mainly identified as either VFR or business.

To-Destination Trips

	<u>Plane</u>	<u>Bus/ Coach</u>	<u>Private Vehicle</u>	<u>R/H Vehicle</u>	<u>Train</u>	<u>S/B/F</u>
Holiday Interstate						
Before	+17.7	+137.1	+18.4	+20.9	+30.7	+263.6
After	+67.1	-42.8	-11.6	-33.3	-46.9	-12.5
Holiday Intrastate						
Before	+6.9	+34.6	-3.3	+28.3	+1.3	+78.2
After	+7.1	-7.4	+4.4	-21.0	-43.1	-31.0
VFR Interstate						
Before	-6.5	+42.2	-0.3	+30.0	-11.9	+133.3
After	+126.1	-34.7	+16.9	-10.0	+33.9	-42.9
VFR Intrastate						
Before	-29.3	+40.1	-3.7	+106.1	-6.8	*
After	+95.7	+24.1	+13.4	-14.9	+21.4	*
Business Interstate						
Before	-2.2	+48.3	+6.5	+220.7	*	-4.3
After	+36.1	-20.2	+20.5	-52.7	*	-59.1
Business Intrastate						
Before	+8.8	+63.6	-5.2	+125.0	-36.4	-26.7
After	+21.3	-12.1	+17.0	-33.3	+77.2	+36.4

* Insignificant/nochange.

Table 4 provides a breakdown between interstate and intrastate travel and according to the main transport means used of the three trip purposes considered. As expected, the deregulatory period shows a general shift to *Plane* from the other transport means. In the case of interstate holiday travel, the shift to *Plane* is systematic, with all other transport means losing shares in the process. This increase in *Plane* usage in interstate holiday travel, in the face of a declining market for interstate holiday travel, attests to the demand stimulation engendered by the deregulation of the market.

There is a consistent decline in the use of *Rented Vehicles* across all trip purposes, a very stark contrast to its phenomenal growth in interstate and intrastate VFR (+30.0% and +106.1%, respectively) and business (+220.7% and +125.0%, respectively) travels prior to deregulation. For VFR and business, as well as for intrastate HOLIDAY, travellers, the figures reveal the continuing importance in the use of *Private Vehicles*. Use of *Bus/Coach* declined across all groups except in intrastate VFR travel. A closer examination shows that intrastate VFR travel has always had an upward trend.

Within-Destination Trips

An analysis of transport means used for within-destination movements by trip purpose reveals that the following:

- The only instances where there are exhibited clear preferences for transport means used are in the cases of business travellers who prefer *Private Vehicle* and *Rented Vehicle* (in that order) and VFR travellers who prefer to use *Private Vehicle* more than any other transport means.
- Holiday travellers use the whole range of transport means, with the two preferred means tending to be *Ship/Boat/Ferry* and *Private Vehicle*, and the least preferred being *Plane*.

5.0 SUMMARY AND CONCLUSION

This paper attempted to examine the effects of airline deregulation on the travel pattern and transport usage of domestic Australian tourists. The data used in the analyses is the BTR's Domestic Tourism Monitor (DTM). Analyses focused on two sets of traveller

classifications based on the destination chosen (interstate vs intrastate) and the purpose of the trip (business, holiday and VFR). Analysis of travellers' transport usage was made not only in terms of the different transport means, but also in terms of the to-destination and within-destination movements that form part of all tourism activity.

The paper's findings are that, as a consequence of airline deregulation: (1) long-distance, interstate destinations have become more attractive to Australian travellers; (2) there is a trend towards the concentration in the carriage of to-destination movements through *Plane* and *Private Vehicle*, with the other transport means, such as *Train* and *Bus/Coach*, likely to thrive primarily by servicing the within-destination market; and (2) there is a systematic shift to the use of *Plane* among interstate holiday travellers.

The other related findings discussed in the paper should be considered as tentative results requiring further research and analysis. For instance, the hypothesised choice behaviour among low-cost travel options appears to be borne out by the research findings. Nevertheless, they need to be explored and refined further. The DTM provides the avenue through which this, as well as examination of other issues in transport and tourism, may be undertaken.

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